

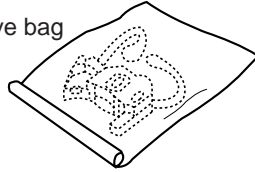
SERVICING PRECAUTIONS

NOTES REGARDING HANDLING OF THE PICK-UP

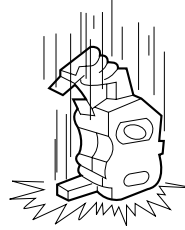
1. Notes for transport and storage

- 1) The pick-up should always be left in its conductive bag until immediately prior to use.
- 2) The pick-up should never be subjected to external pressure or impact.

Storage in conductive bag

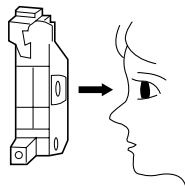


Drop impact



2. Repair notes

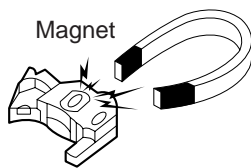
- 1) The pick-up incorporates a strong magnet, and so should never be brought close to magnetic materials.
- 2) The pick-up should always be handled correctly and carefully, taking care to avoid external pressure and impact. If it is subjected to strong pressure or impact, the result may be an operational malfunction and/or damage to the printed-circuit board.
- 3) Each and every pick-up is already individually adjusted to a high degree of precision, and for that reason the adjustment point and installation screws should absolutely never be touched.
- 4) Laser beams may damage the eyes!
Absolutely never permit laser beams to enter the eyes!
Also NEVER switch ON the power to the laser output part (lens, etc.) of the pick-up if it is damaged.



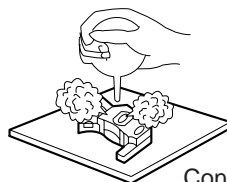
NEVER look directly at the laser beam, and don't let contact fingers or other exposed skin.

5) Cleaning the lens surface

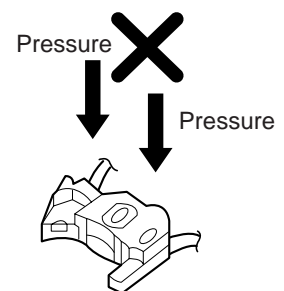
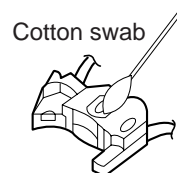
If there is dust on the lens surface, the dust should be cleaned away by using an air bush (such as used for camera lens). The lens is held by a delicate spring. When cleaning the lens surface, therefore, a cotton swab should be used, taking care not to distort this.



How to hold the pick-up



Conductive Sheet



6) Never attempt to disassemble the pick-up.

Spring by excess pressure. If the lens is extremely dirty, apply isopropyl alcohol to the cotton swab. (Do not use any other liquid cleaners, because they will damage the lens.) Take care not to use too much of this alcohol on the swab, and do not allow the alcohol to get inside the pick-up.

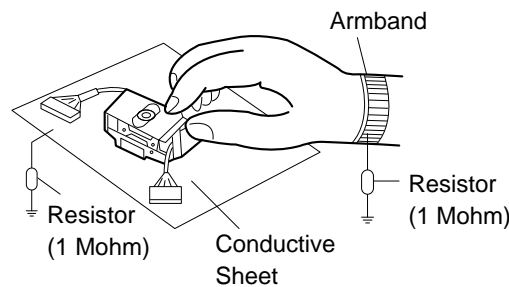
NOTES REGARDING COMPACT DISC PLAYER REPAIRS

1. Preparations

- 1) Compact disc players incorporate a great many ICs as well as the pick-up (laser diode). These components are sensitive to, and easily affected by, static electricity. If such static electricity is high voltage, components can be damaged, and for that reason components should be handled with care.
- 2) The pick-up is composed of many optical components and other high-precision components. Care must be taken, therefore, to avoid repair or storage where the temperature of humidity is high, where strong magnetism is present, or where there is excessive dust.

2. Notes for repair

- 1) Before replacing a component part, first disconnect the power supply lead wire from the unit
- 2) All equipment, measuring instruments and tools must be grounded.
- 3) The workbench should be covered with a conductive sheet and grounded.
When removing the laser pick-up from its conductive bag, do not place the pick-up on the bag. (This is because there is the possibility of damage by static electricity.)
- 4) To prevent AC leakage, the metal part of the soldering iron should be grounded.
- 5) Workers should be grounded by an armband (1M Ω)
- 6) Care should be taken not to permit the laser pick-up to come in contact with clothing, in order to prevent static electricity changes in the clothing to escape from the armband.
- 7) The laser beam from the pick-up should NEVER be directly facing the eyes or bare skin.



ESD PRECAUTIONS

Electrostatically Sensitive Devices (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive Devices (ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ESD devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESD devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESD devices.
6. Do not remove a replacement ESD device from its protective package until immediately before you are ready to install it. (Most replacement ESD devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive materials).
7. Immediately before removing the protective material from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : BE SURE NO POWER IS APPLIED TO THE CHASSIS OR CIRCUIT, AND OBSERVE ALL OTHER SAFETY PRECAUTIONS.

8. Minimize bodily motions when handling unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ESD device).
-

ADJUSTMENTS

This set has been aligned at the factory and normally will not require further adjustment. As a result, it is not recommended that any attempt is made to modificate any circuit. If any parts are replaced or if anyone tampers with the adjustment, realignment may be necessary.

IMPORTANT

- 1. Check Power-source voltage.
- 2. Set the function switch to band being aligned.
- 3. Turn volume control to minimum unless otherwise noted.
- 4. Connect low side of signal source and output indicator to chassis ground unless otherwise specified.
- 5. Keep the signal input as low as possible to avoid AGC and AC action.

TAPE DECK ADJUSTMENT

1. AZIMUTH ADJUSTMENT

Deck Mode	Test Tape	Test Point	Adjustment	Adjust for
A Deck Playback	MTT-114	Speaker Out	DECK Screw Azimuth Screw	Maximum
B Deck Playback	MTT-114	Speaker Out	Azimuth Screw	Maximum

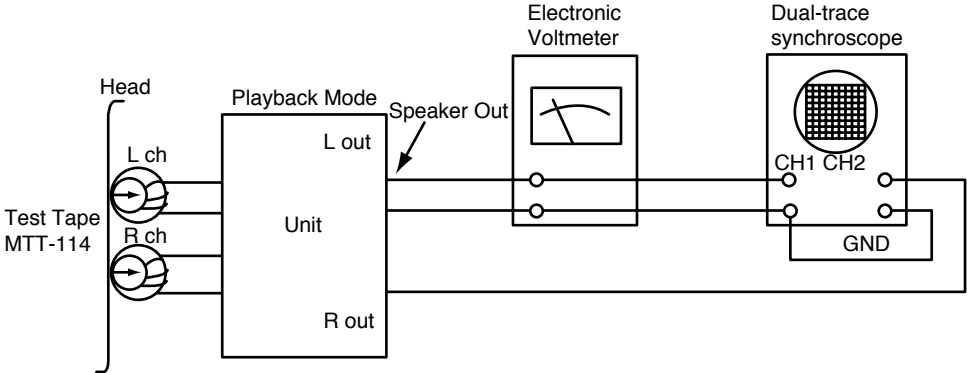


Figure 1. Azimuth Adjustment Connection Diagram

2. MOTOR SPEED ADJUSTMENT

Deck Mode	Test Tape	Test Point	Adjustment	Adjust for	Remark
Normal Speed	MTT-111	Speaker Out	VR201	3kHz ± 1%	A Deck
HI-Speed	MTT-111	Speaker Out	more than 5.4kHz		HI-Speed Dubbing Mode

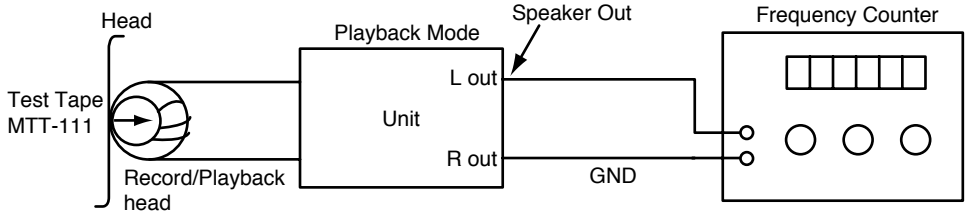


Figure 2. Motor Speed Adjustment Connection Diagram

3. RECORD BIAS ADJUSTMENT

Deck Mode	Test Tape	Test Point	Adjustment	Adjust for
Rec/Pause	MTT-5511	ERASE HEAD WIRE(PN202)	L203	60kHz±5kHz (Auto stop) 85kHz±5kHz(Auto Reverse)

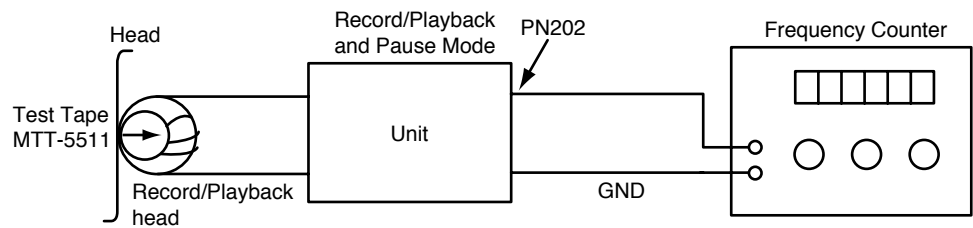


Figure 3. Record Bias Adjustment Connection Diagram

4. TUNER ADJUSTMENT

Item	Test Point	Adjustment	Adjust for
DC Voltage	Checker IC Pin 26, 28	L106	0V±50mV

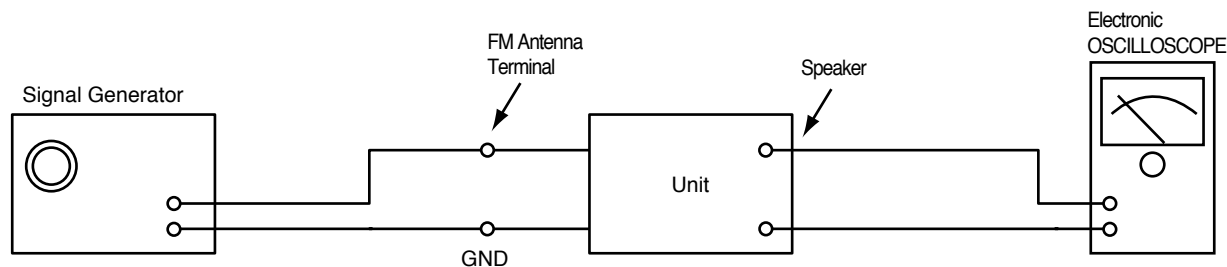
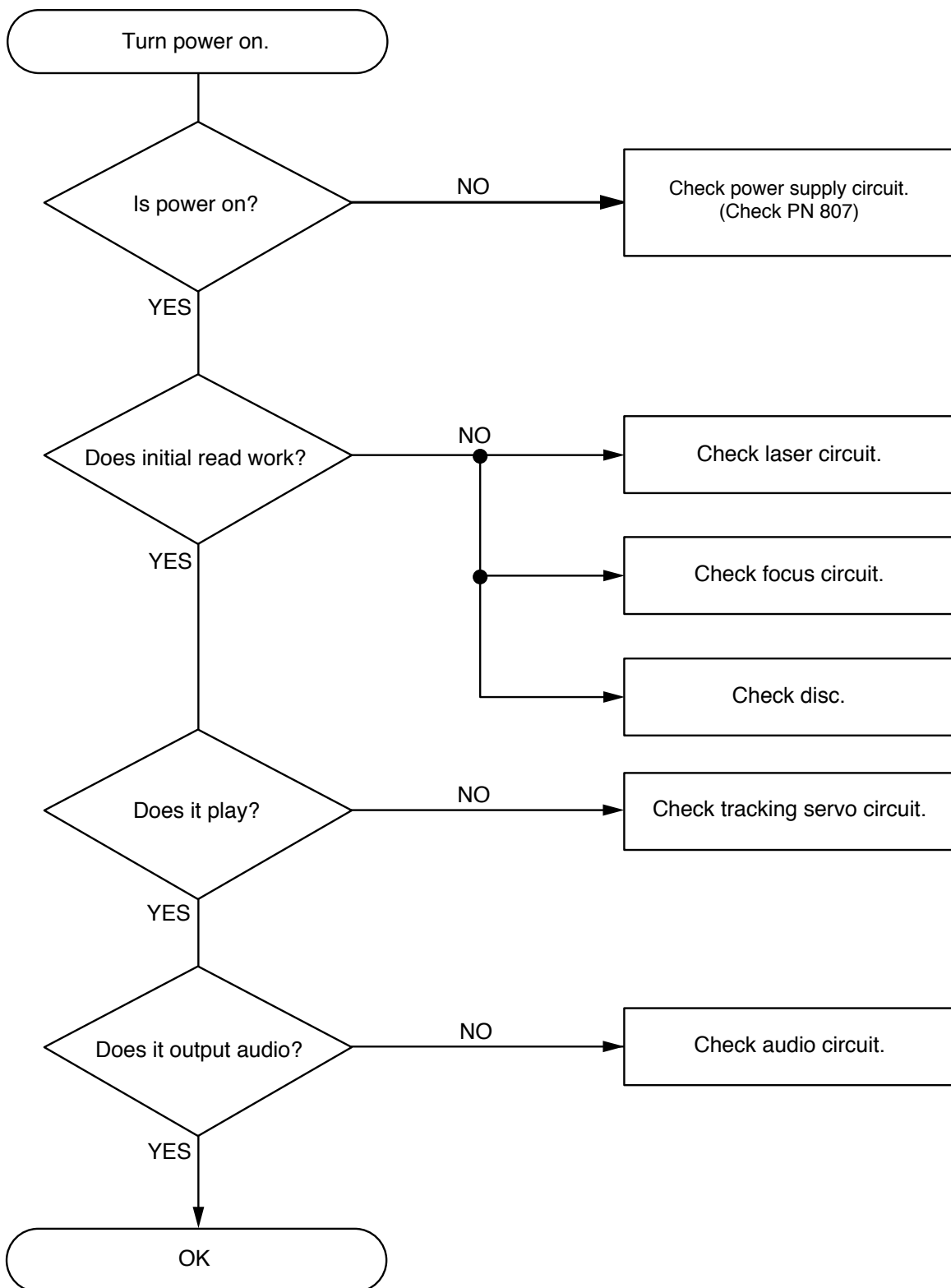
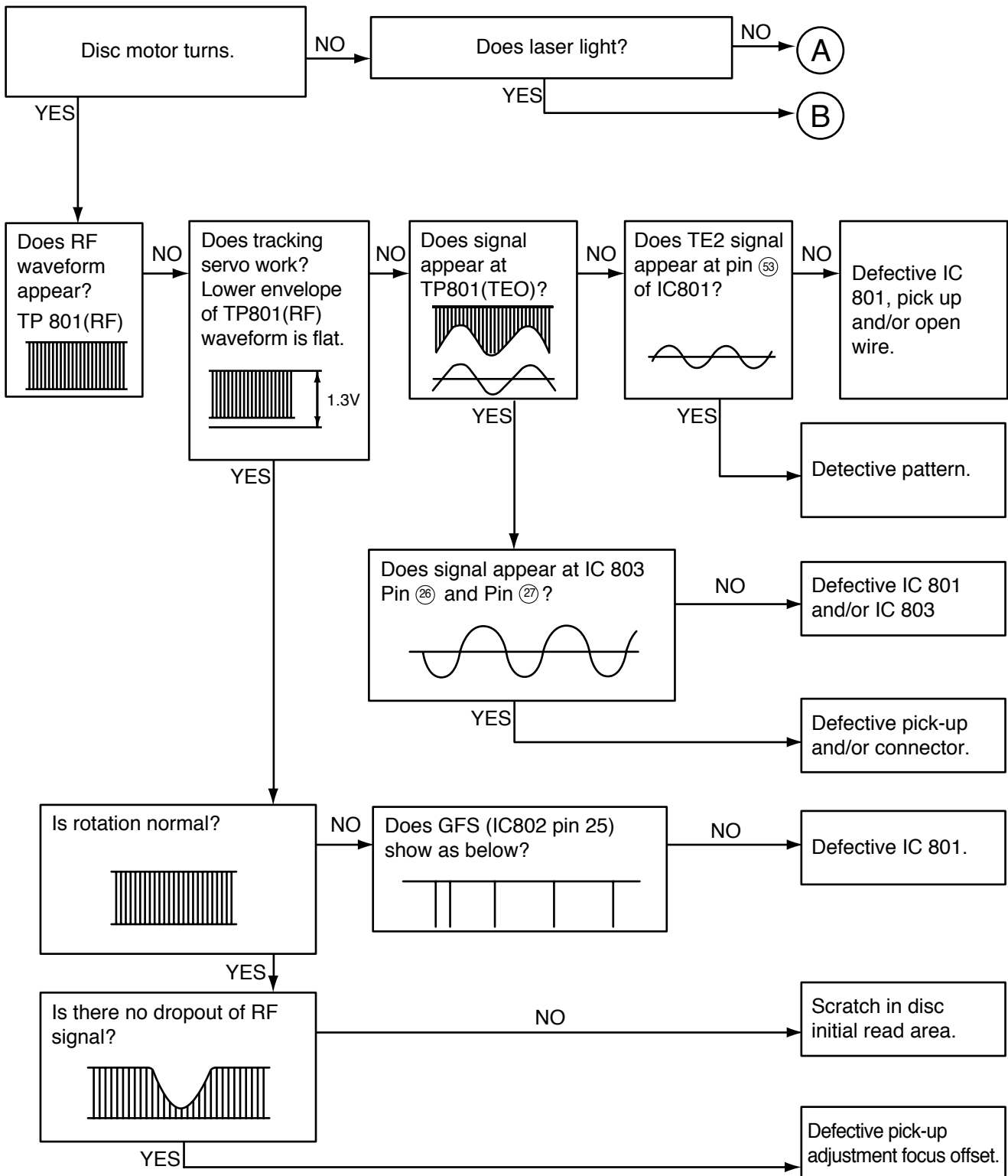


Figure 4. Tuner(S curve) Adjustment Connection Diagram

TROUBLESHOOTING

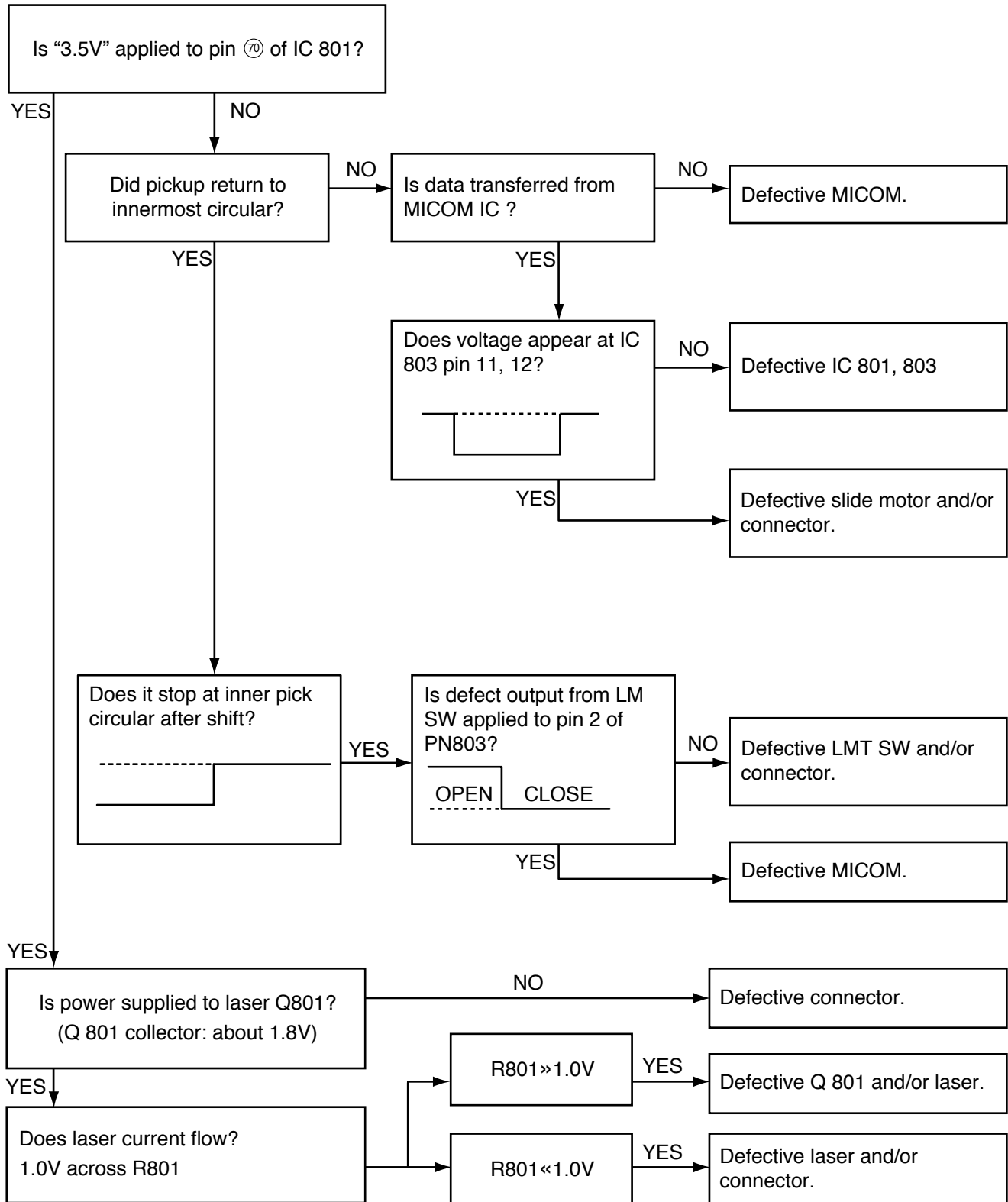


Fails to initial read



Ⓐ

Laser does not light.



Ⓑ

Laser lights.

Does lens move up/down?

NO

Does IC 801 out focus search signal?

NO

Defective IC801

YES



IC 801 pin ④⑧ (FEO)

YES

Is focus search signal applied to pin ⑬ , ⑯ of CN801?

NO

Defective IC803

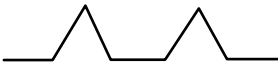


YES

Open activator and/or connector.

Confirm initial read with disc

Does TP 801 RF signal appear even in low level?

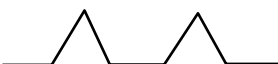


NO

Open connector and/or defective IC 801.

YES

Is laser output adjustment correct?



NO

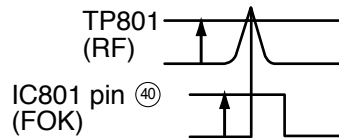
Incorrect turntable height.
Degraded laser diode.

YES

Does FOK(focus ok) signal appear?

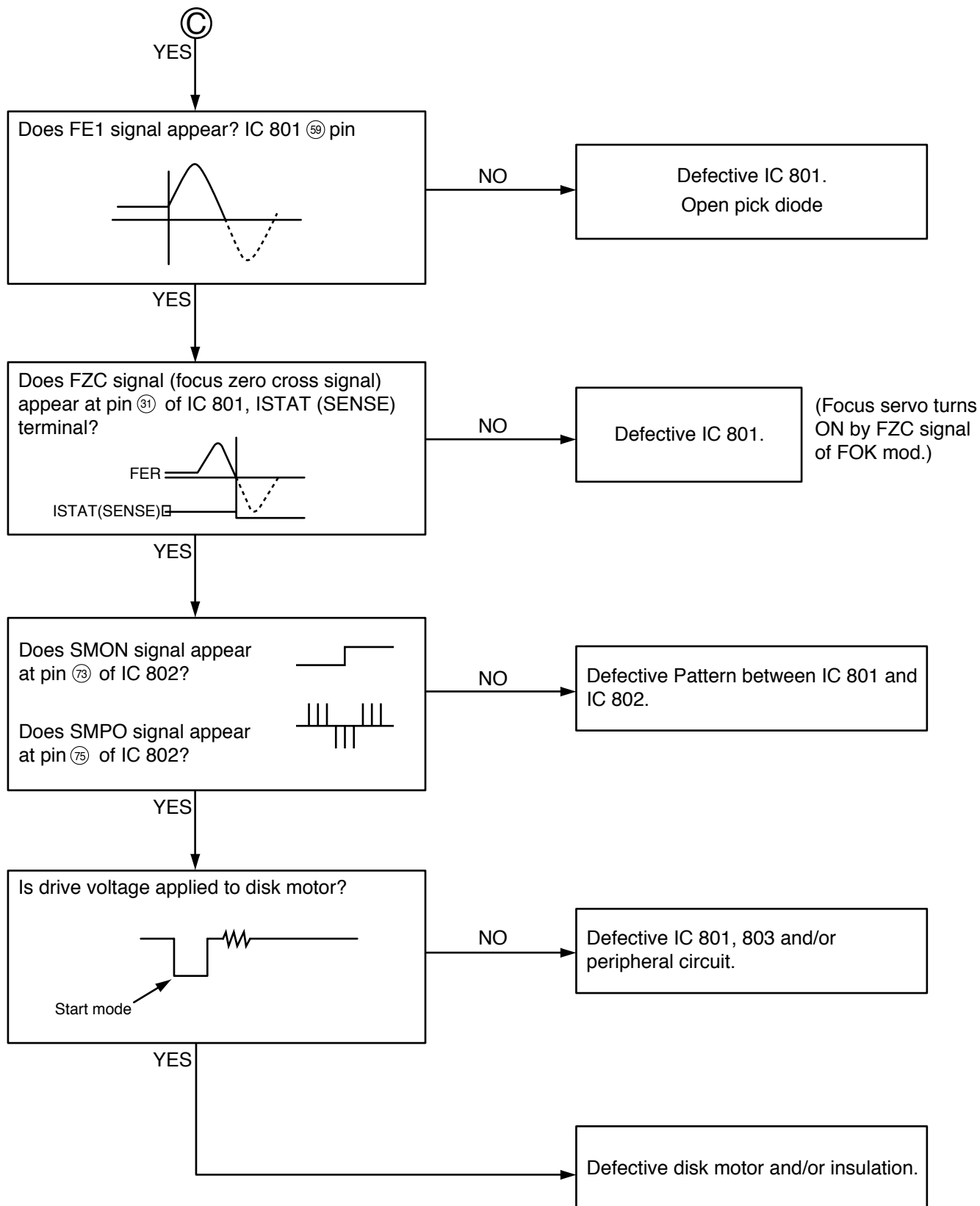
NO

Defective IC 801.



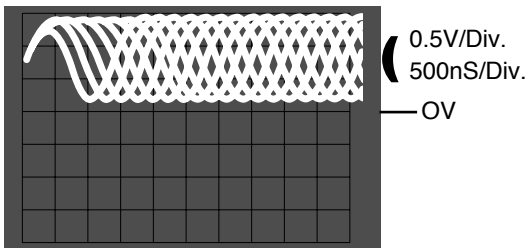
YES

Ⓒ

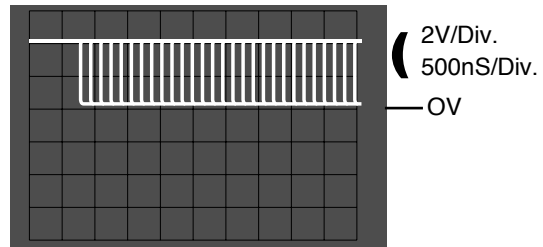


WAVEFORMS OF MAJOR CHECK POINT

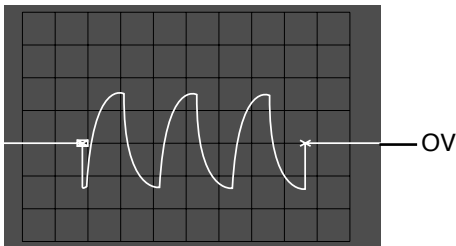
1. HF signal (RF signal) waveform
(Test Point TP801) during normal play



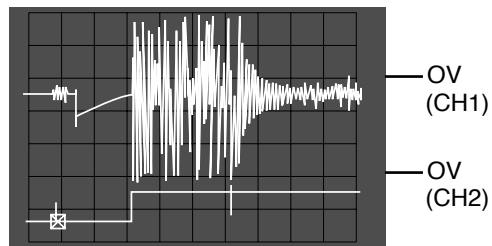
2. EFM signal (pin ③③ IC 801) waveform
during Normal Play



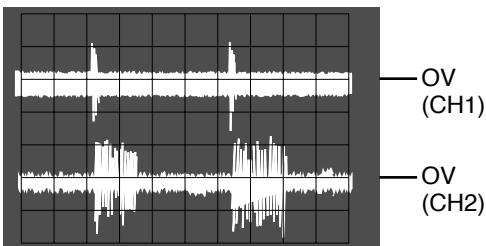
3. Focus coil drive waveform(Pin NO 1 , 2 of IC 803)
• When focus search failed or there is no disc on the tray



- Focus coil drive waveform(pin NO 1 , 2 of IC803) and
FOK (pin NO ④④ of IC 801) when focus search is
accomplished

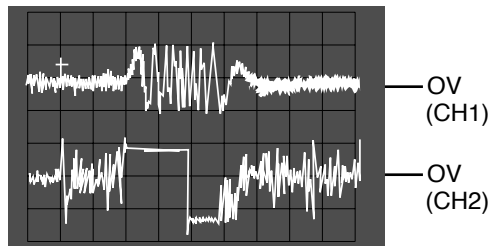


4. Tracking coil drive waveform (pin NO ②⑥ , ②⑦ of IC 803)
and TEO during track traverse
(1) When time division is 20nS/div



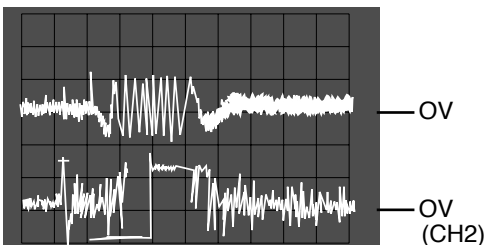
CH1 : TEO(TP801)
1V/Div.
CH2 : TRACK COIL DRIVE
SIGNAL 2V/Div.

- (2) When time division 0.5nS/div.
(During forward track traverse)



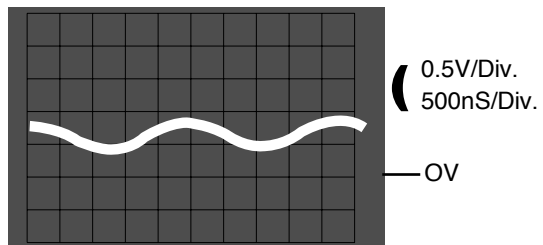
CH1 : TEO(TP801)
1V/Div.
CH2 : TRACKING COIL DRIVE
SIGNAL 2V/Div.

- (3) When time division is 0.5nS/div.
(During backward Track Traverse)

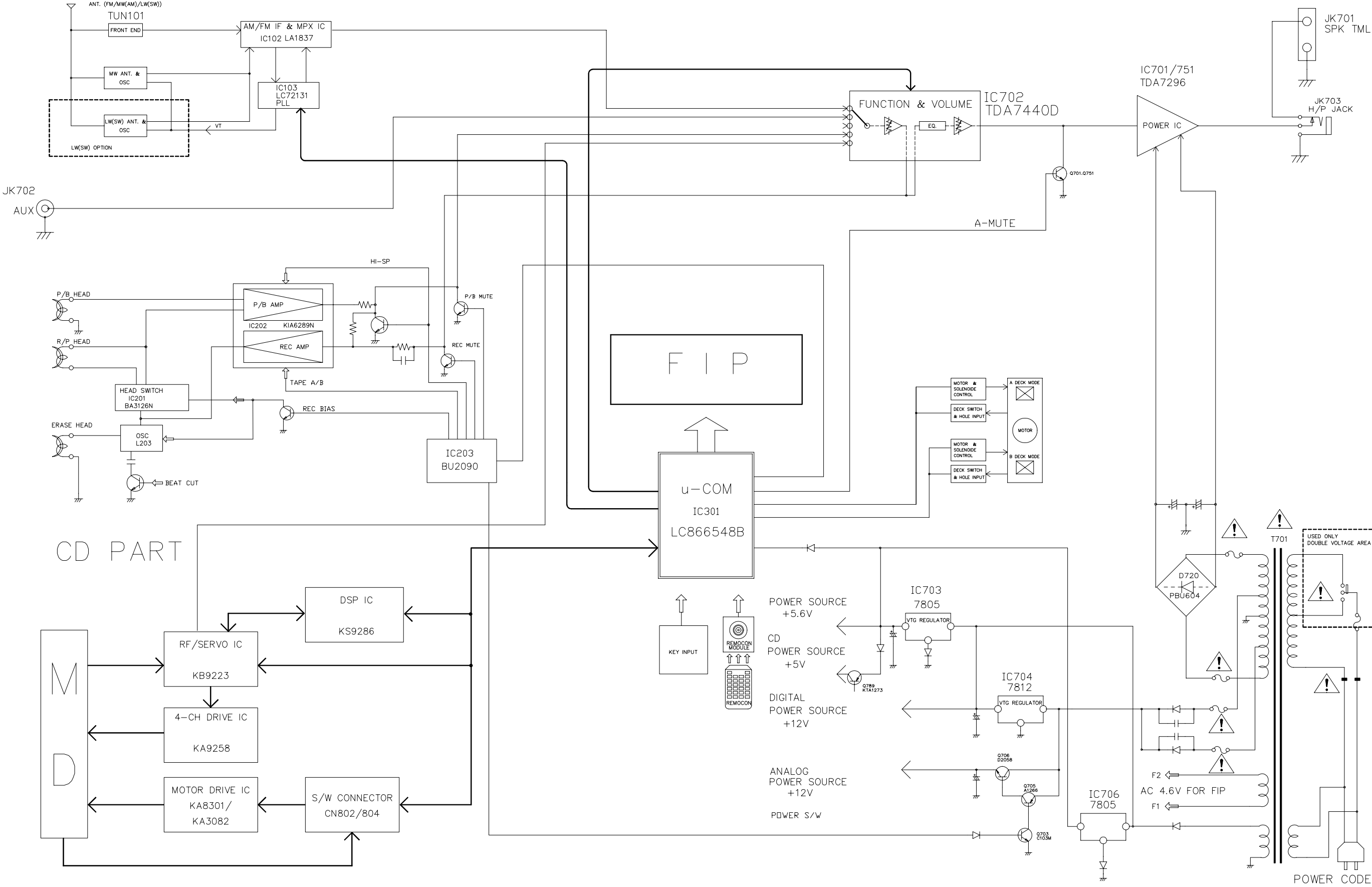


CH1 : TEO(TP801)
1V/Div.
CH2 : TRACKING COIL DRIVE
SIGNAL 2V/Div.

5. Feed motor drive waveform(pin NO 11, 12 of IC 803)
During normal play

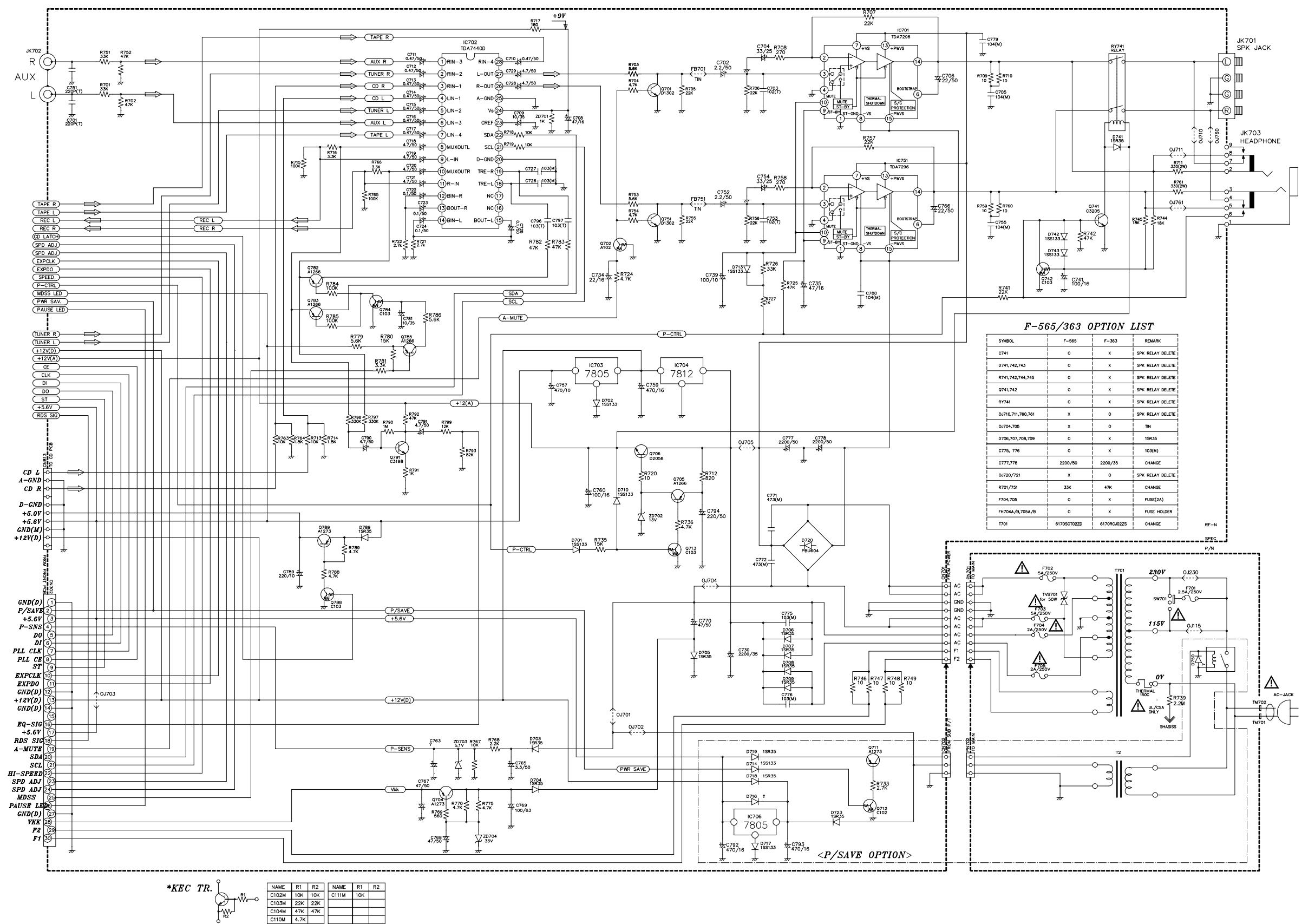


BLOCK DIAGRAM

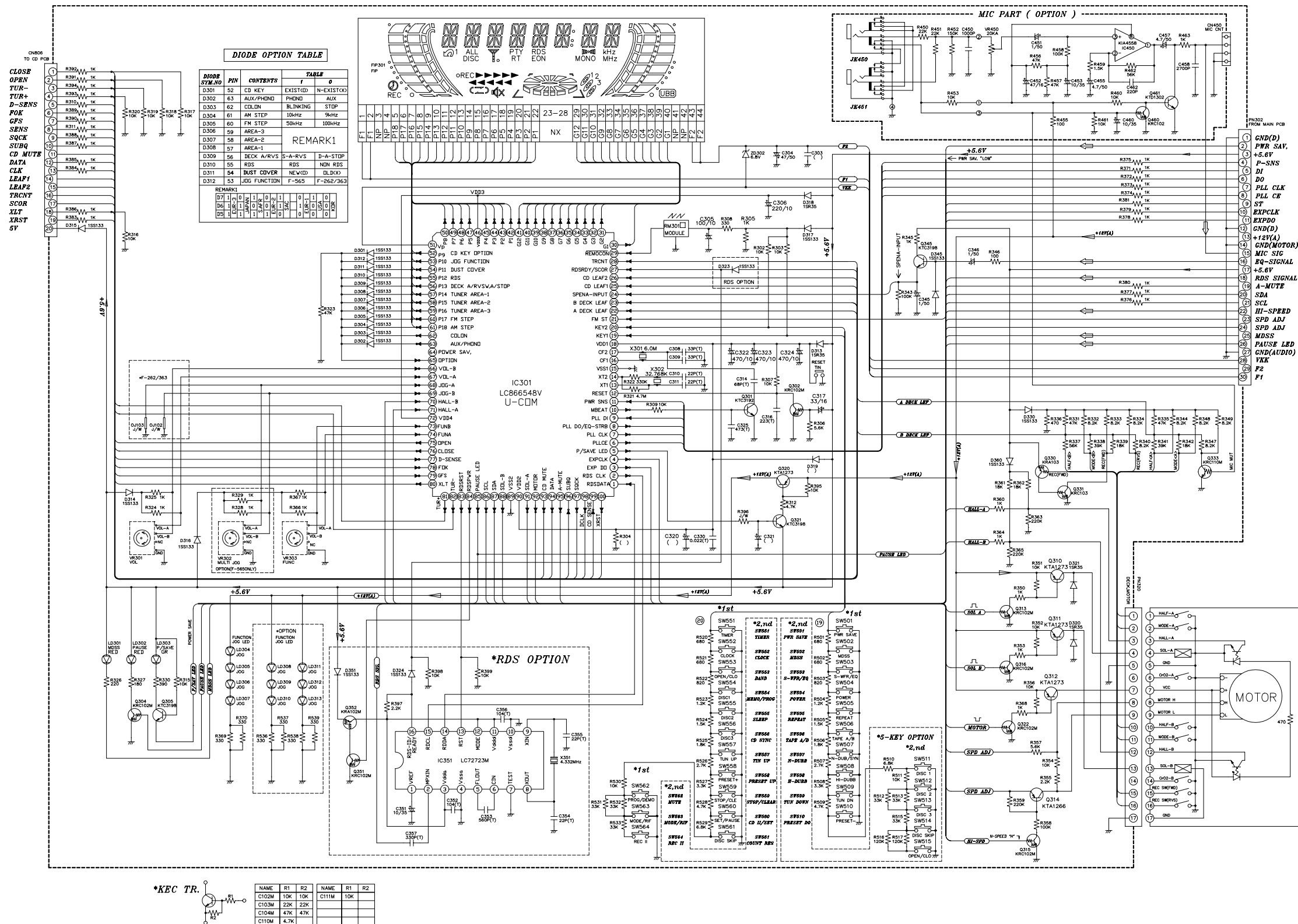


SCHEMATIC DIAGRAMS

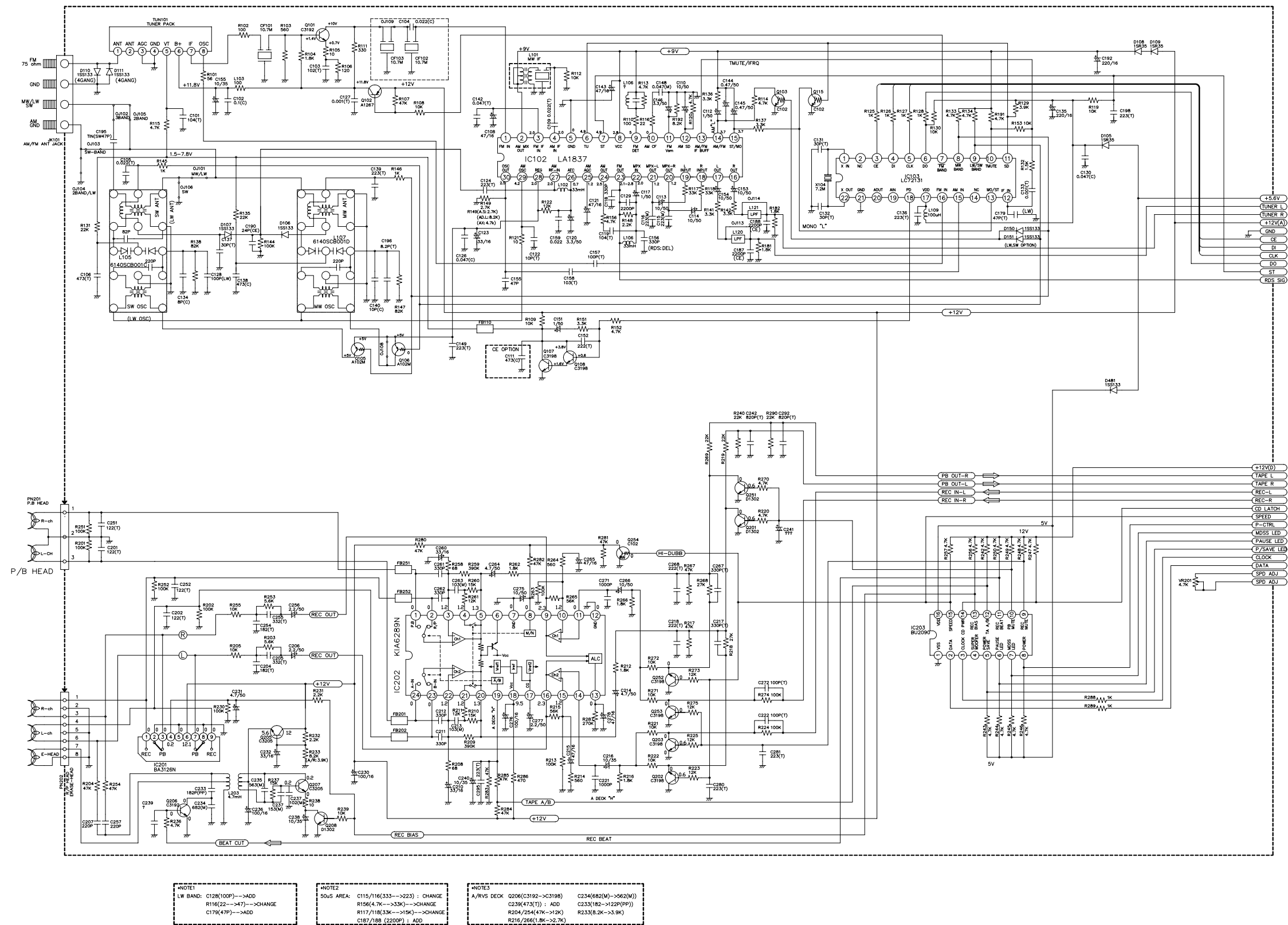
• AMP & POWER CIRCUIT



• FRONT CIRCUIT

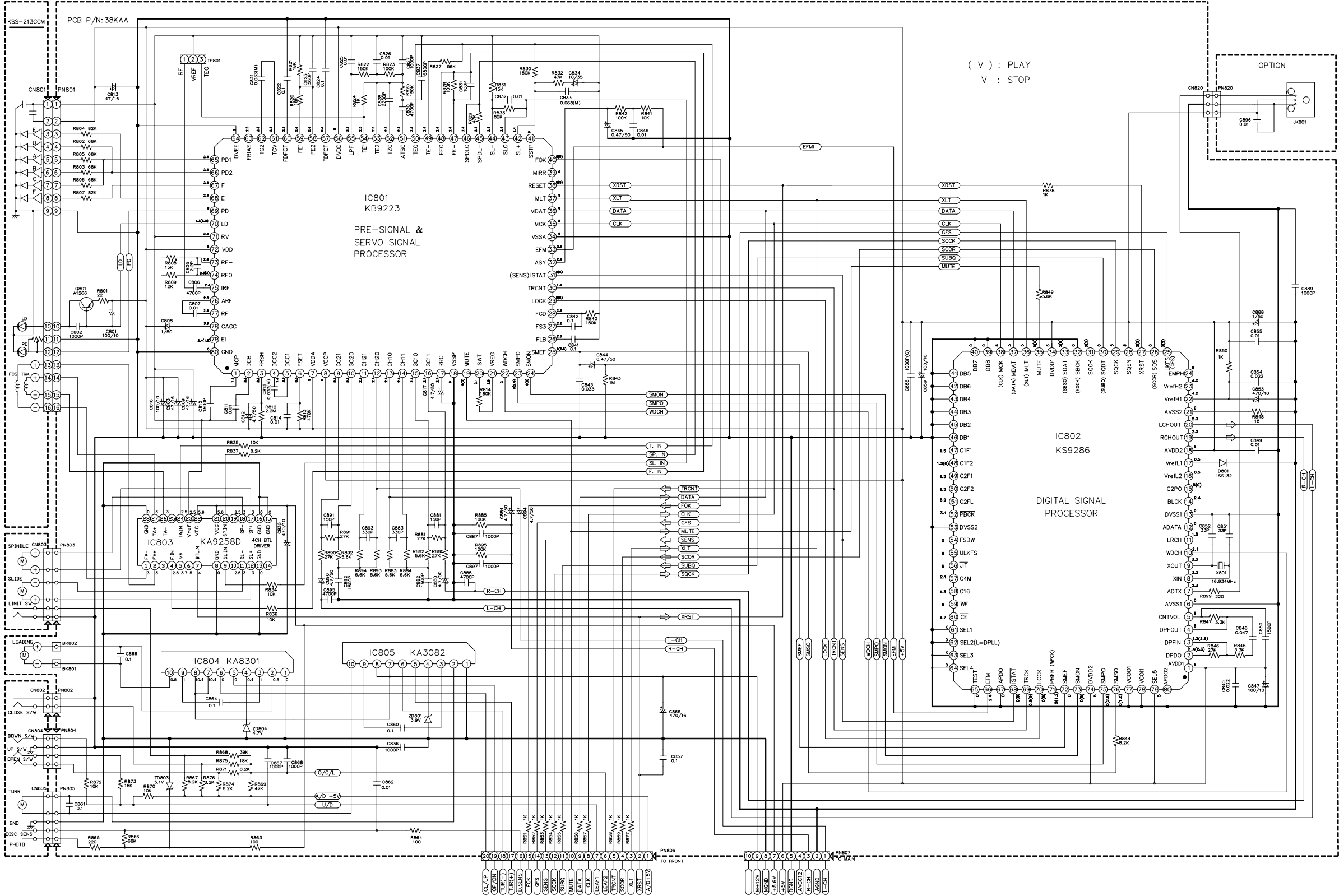


• TUNER & DECK CIRCUIT



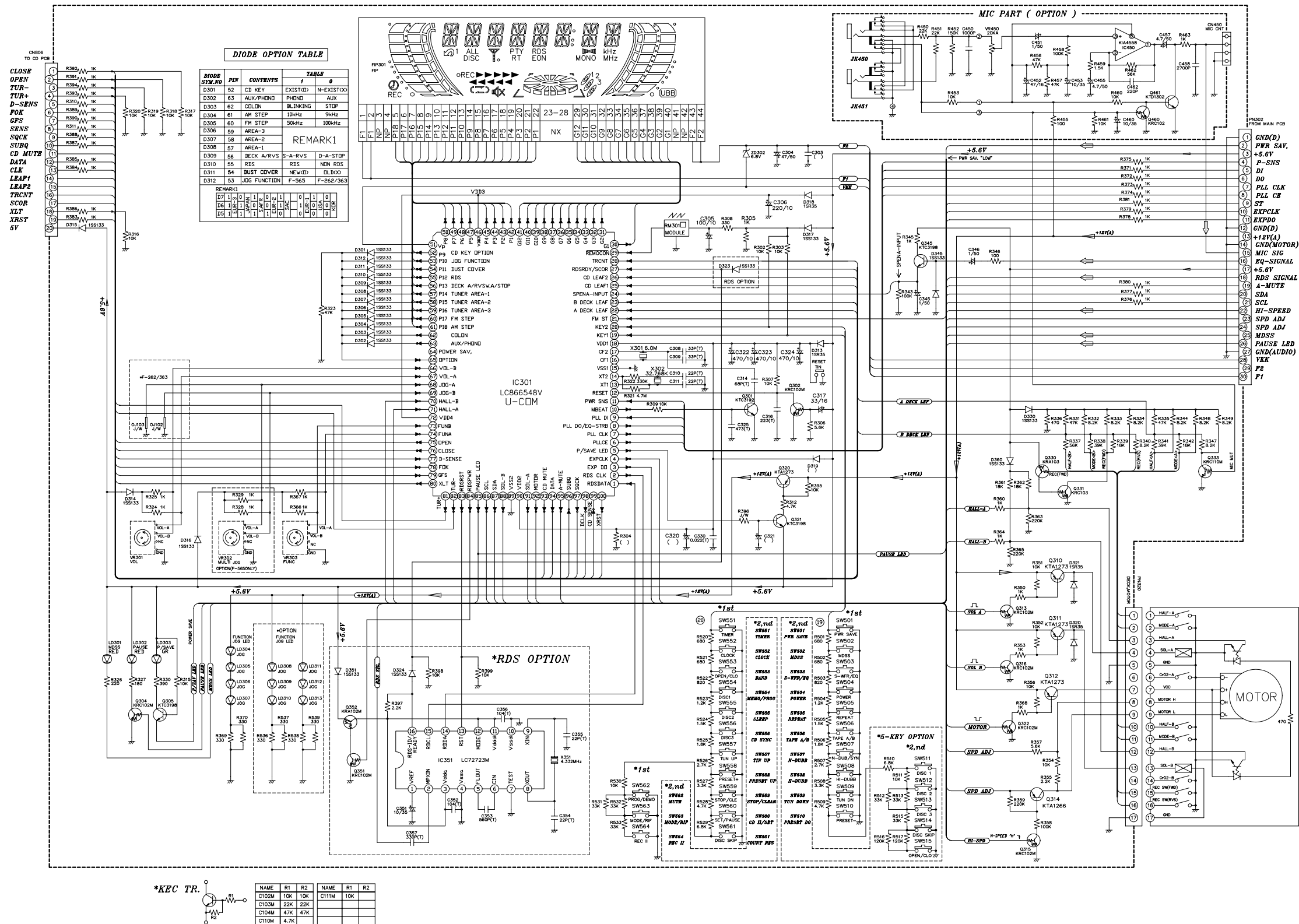
NOTES : Resistance values are indicated in ohms unless otherwise specified (K=1,000, M=1,000,000).
Capacitance values are shown in microfarads unless otherwise (P=MICRO-MICRO FARADS).
Schematic diagram for this model are subject to change for improvement without prior notice.

• CD CIRCUIT



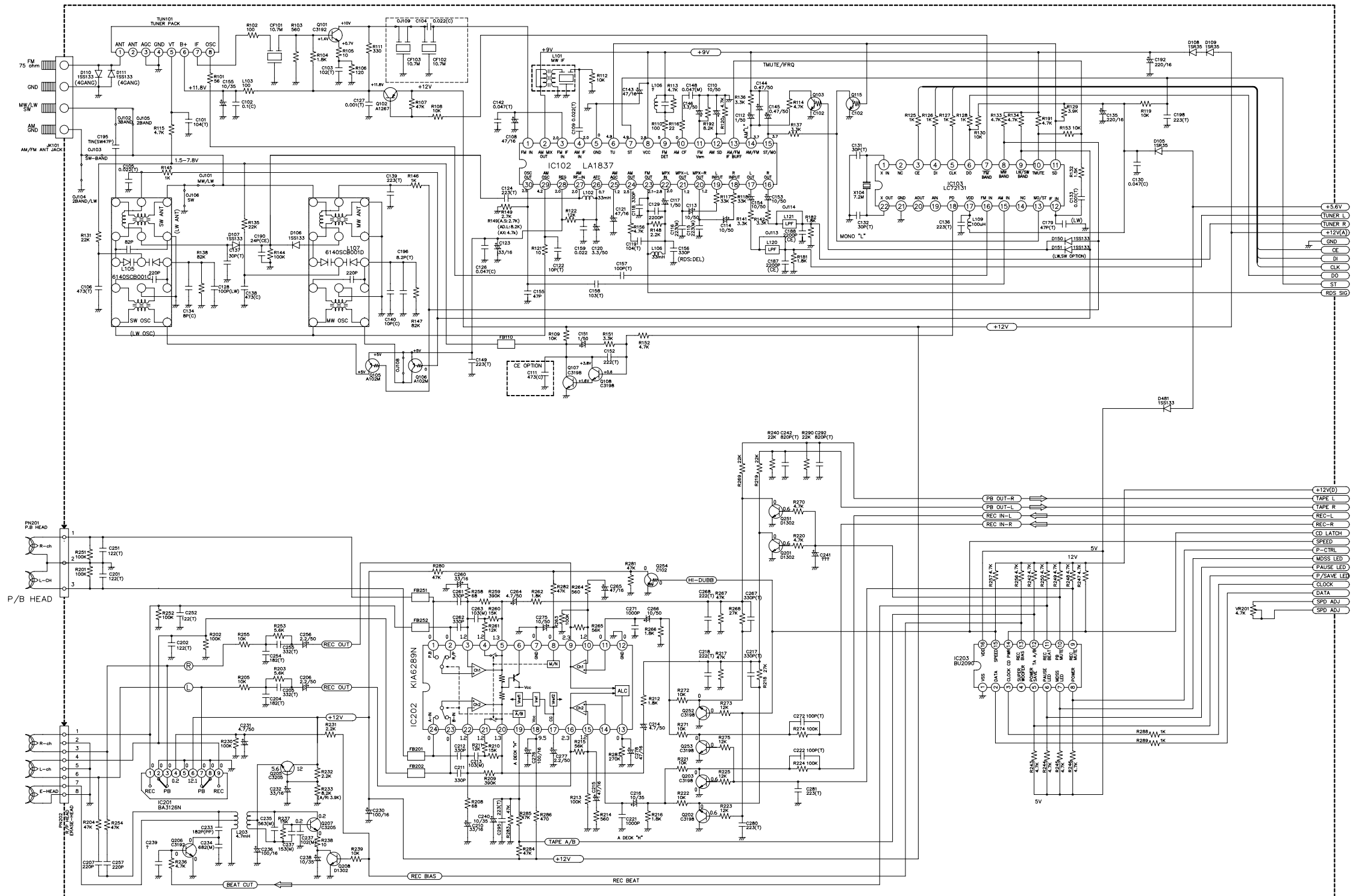
NOTES : Resistance values are indicated in ohms unless otherwise specified (K=1,000, M=1,000,000).
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- **FRONT CIRCUIT**



NOTES : Resistance values are indicated in ohms unless otherwise specified (K=1,000, M=1,000,000).
Capacitance values are shown in microfarads unless otherwise (P=MICRO-MICRO FARADS).
Schematic diagram for this model are subject to change for improvement without prior notice.

• TUNER & DECK CIRCUIT



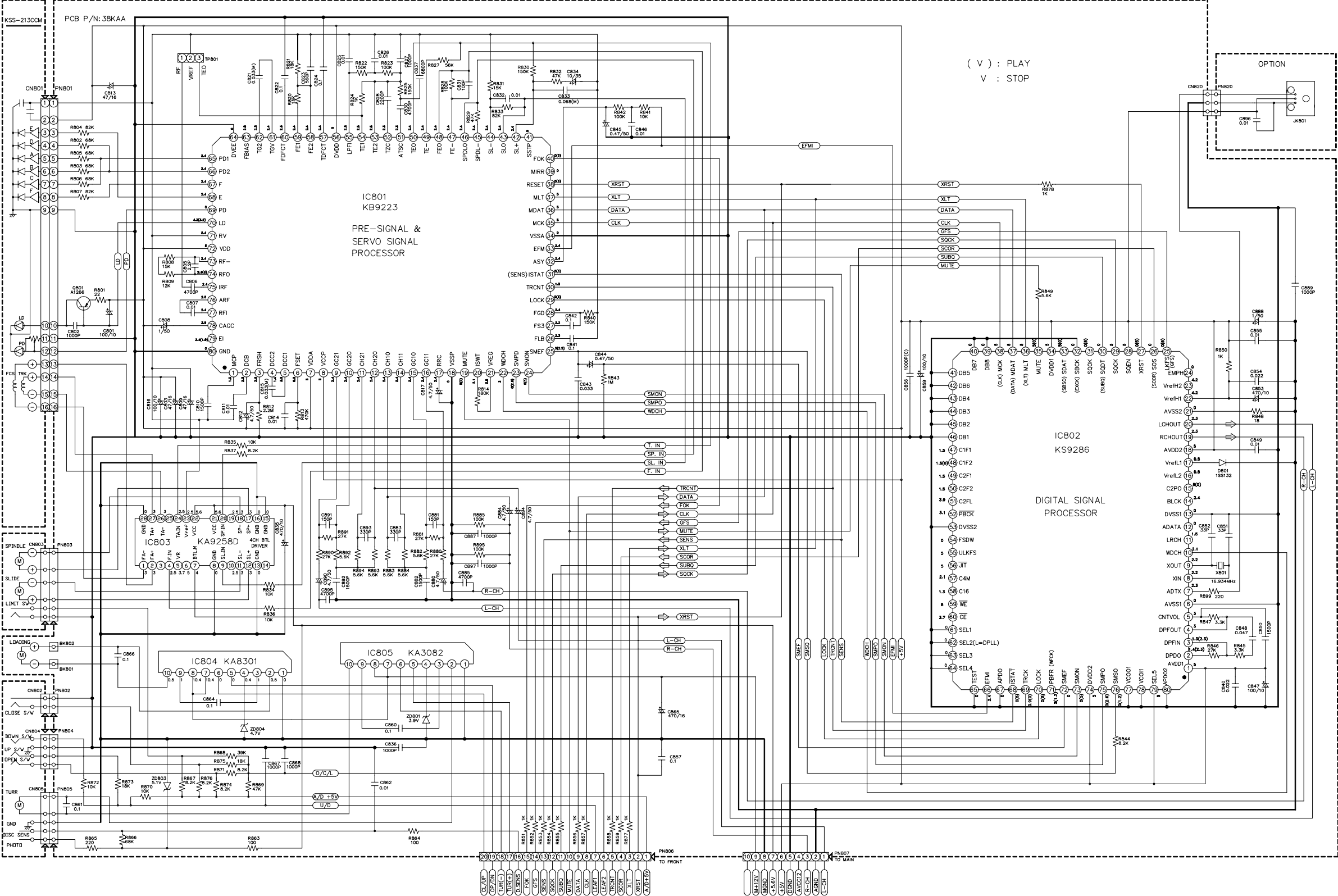
*NOTE1
LW BAND: C126(100P)--->ADD
R116(4.7K--->33K)--->CHANGE
C179(47P)--->ADD

*NOTE2
50us AREA: C115/116(33K--->22K) : CHANGE
R116(4.7K--->33K)--->CHANGE
R117/118(33K--->15K)--->CHANGE
C187/188 (2200P) : ADD

*NOTE3
A/RVS DECK C206(C3192--->C3198) C234(682(M)--->562(M))
C235(473(T)) : ADD C233(82--->122P(PP))
R204/204(47K--->12K) R233(8.2K--->3.9K)
R216/266(1.8K--->2.7K)

NOTES : Resistance values are indicated in ohms unless otherwise specified (K=1,000, M=1,000,000).
Capacitance values are shown in microfarads unless otherwise (P=MICRO-MICRO FARADS).
Schematic diagram for this model are subject to change for improvement without prior notice.

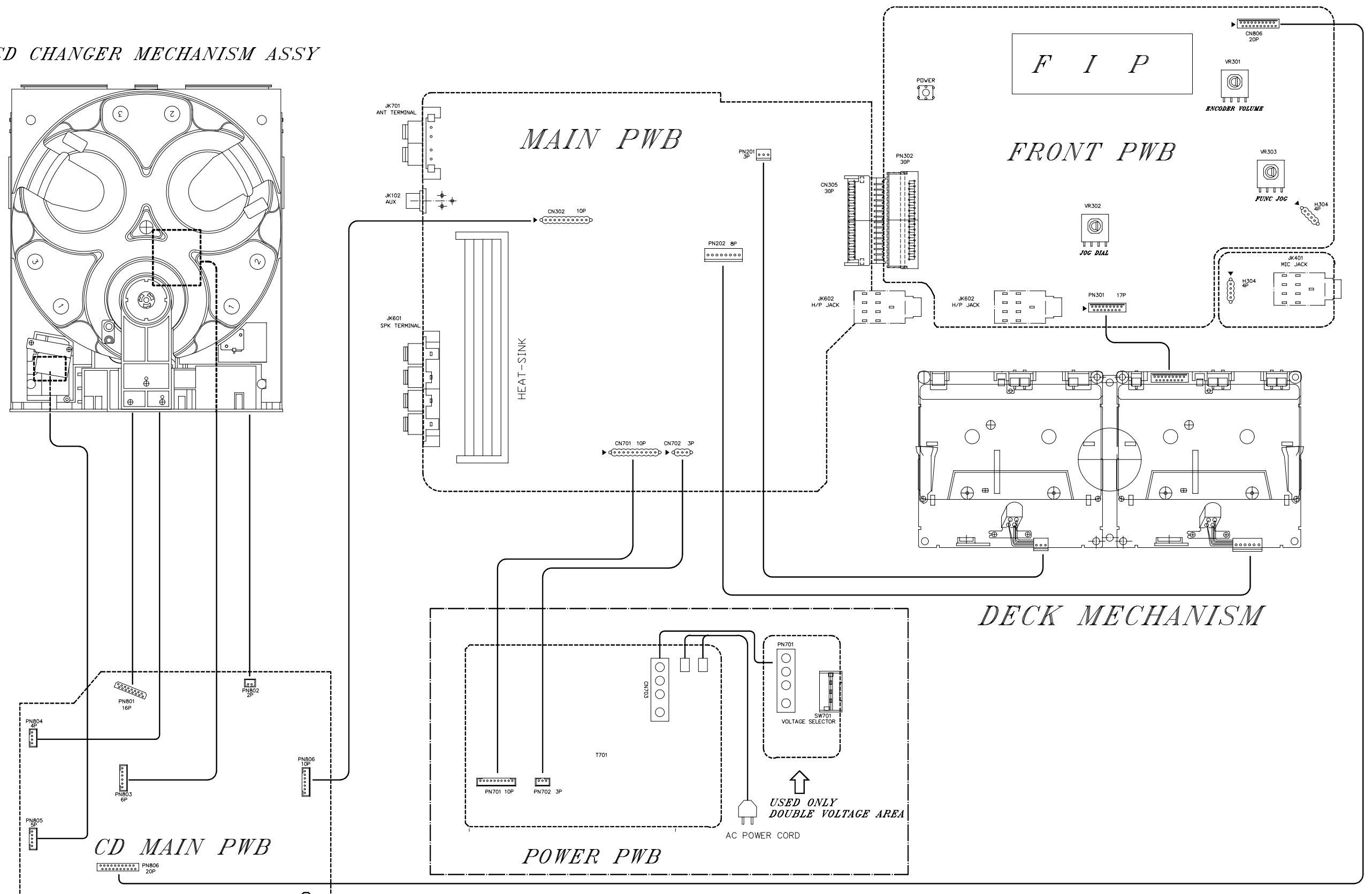
• CD CIRCUIT



NOTES : Resistance values are indicated in ohms unless otherwise specified (K=1,000, M=1,000,000).
Capacitance values are shown in microfarads unless otherwise (P=MICRO-MICRO FARADS).
Schematic diagram for this model are subject to change for improvement without prior notice.

WIRING DIAGRAM

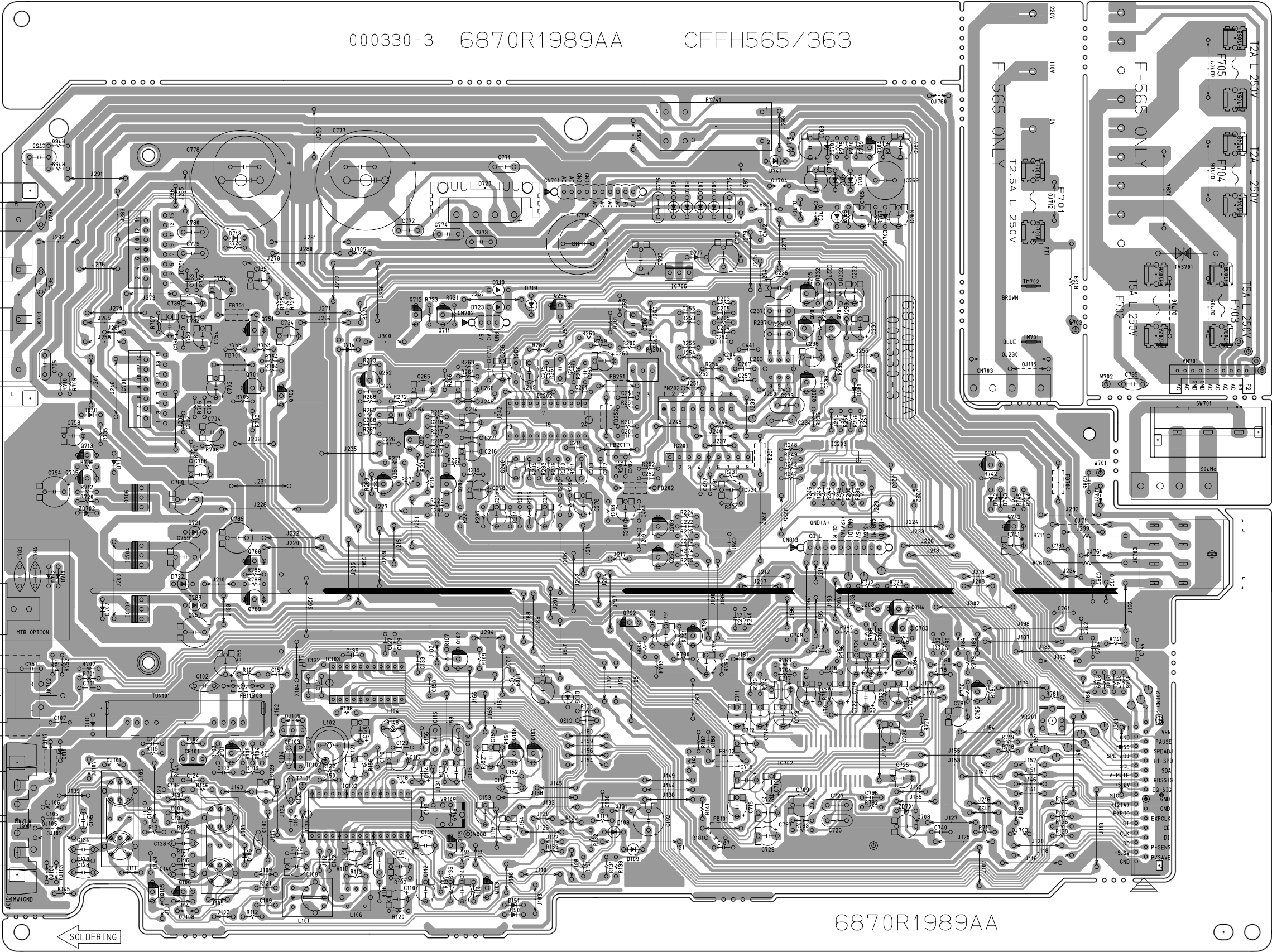
3CD CHANGER MECHANISM ASSY



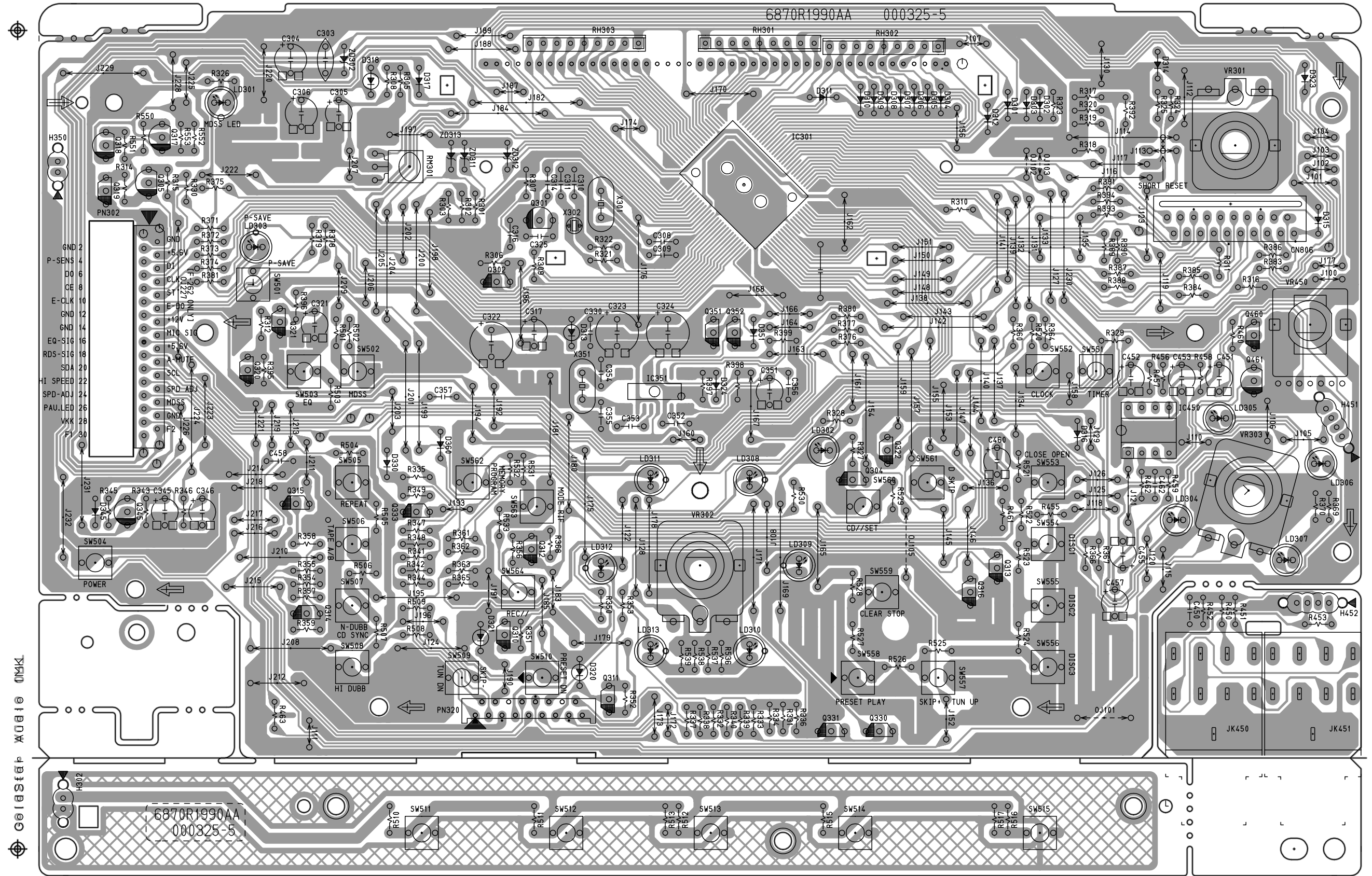
NOTES : Wiring diagram for this model are subject to change for improvement without prior notice.

PCB LAYOUTS

- AMP, TUNER, DECK P.C. BOARD

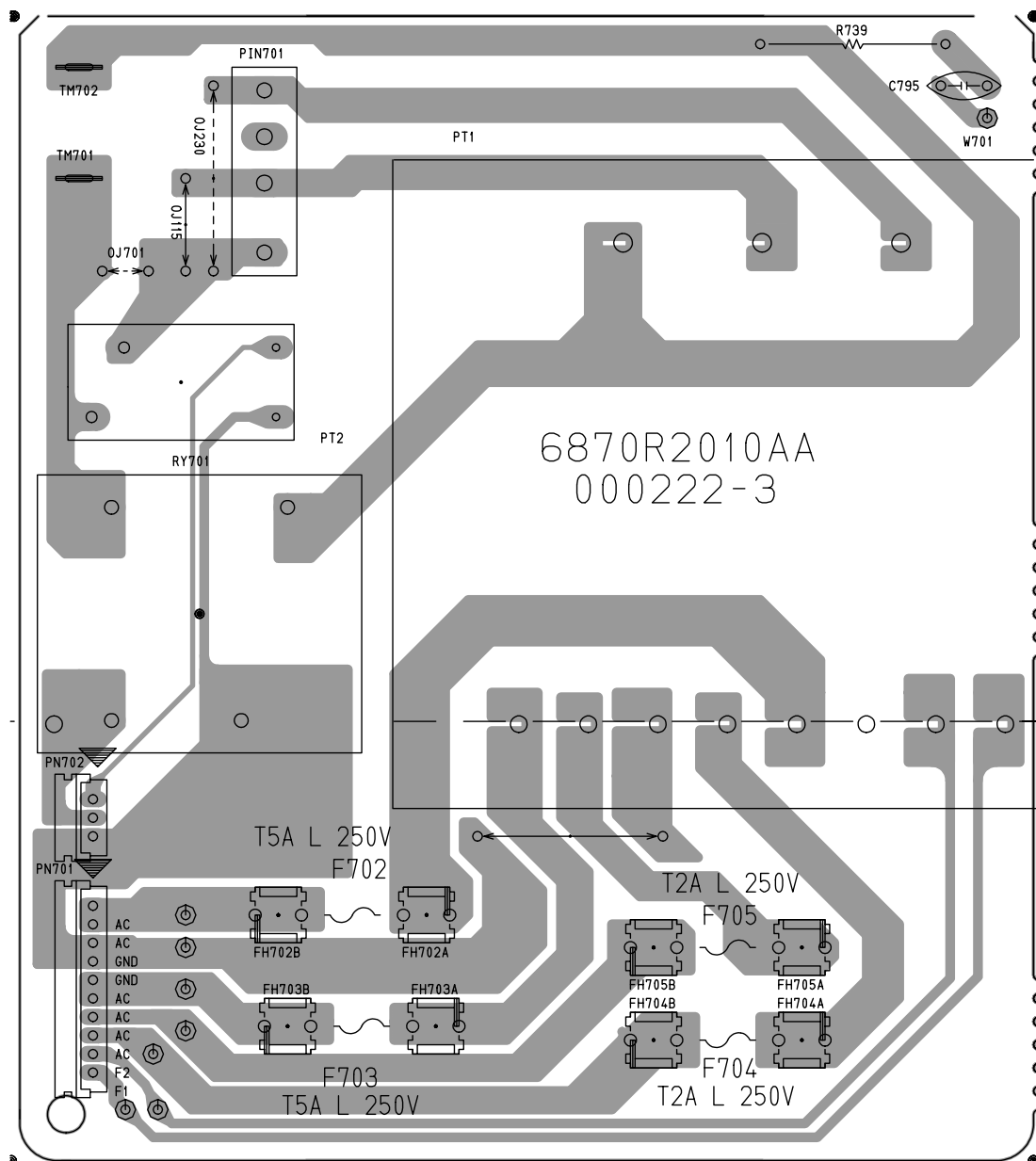


- **FRONT P.C. BOARD**

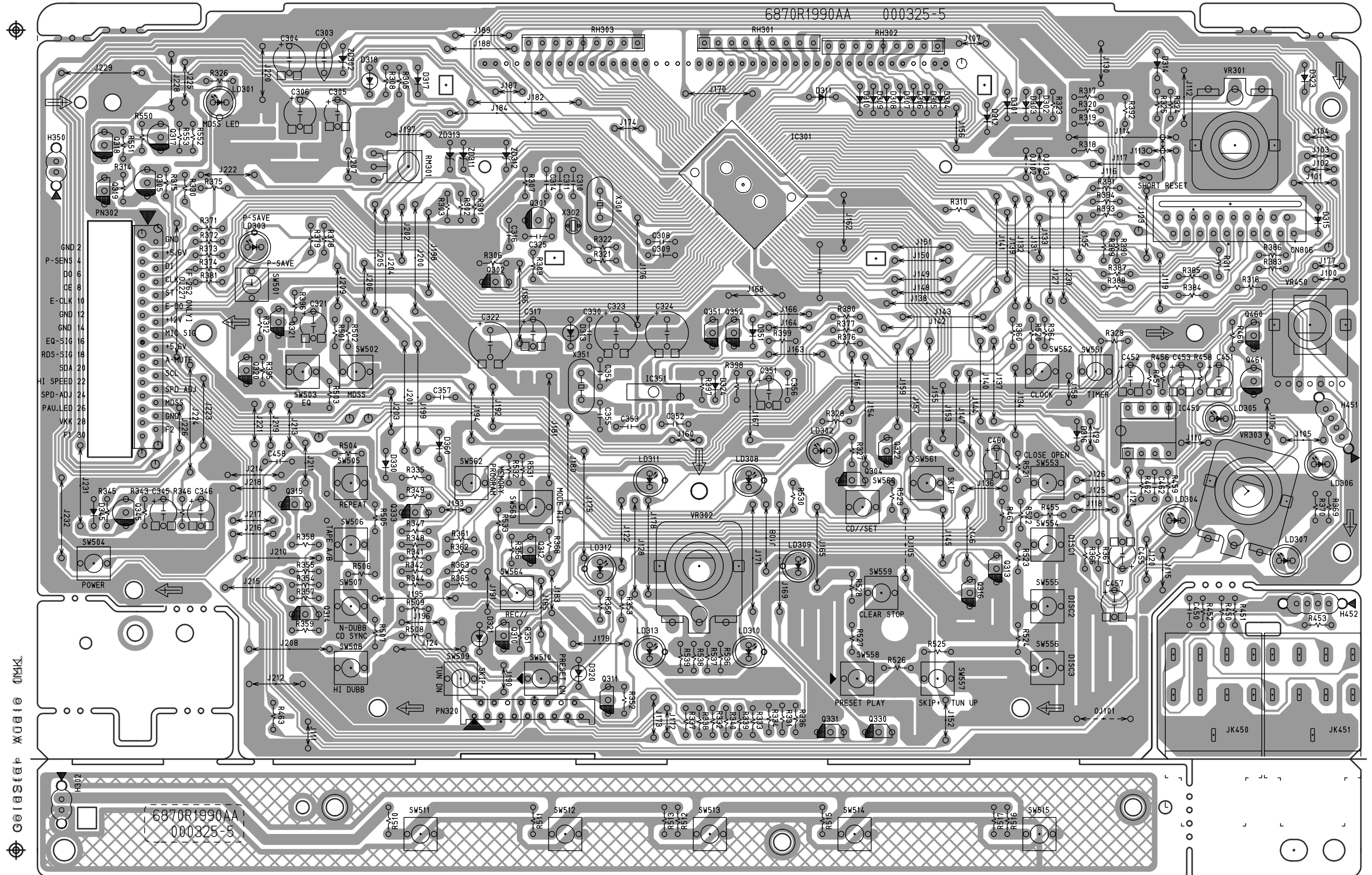


• POWER P.C. BOARD

(1) optional, with POWER SAVING function

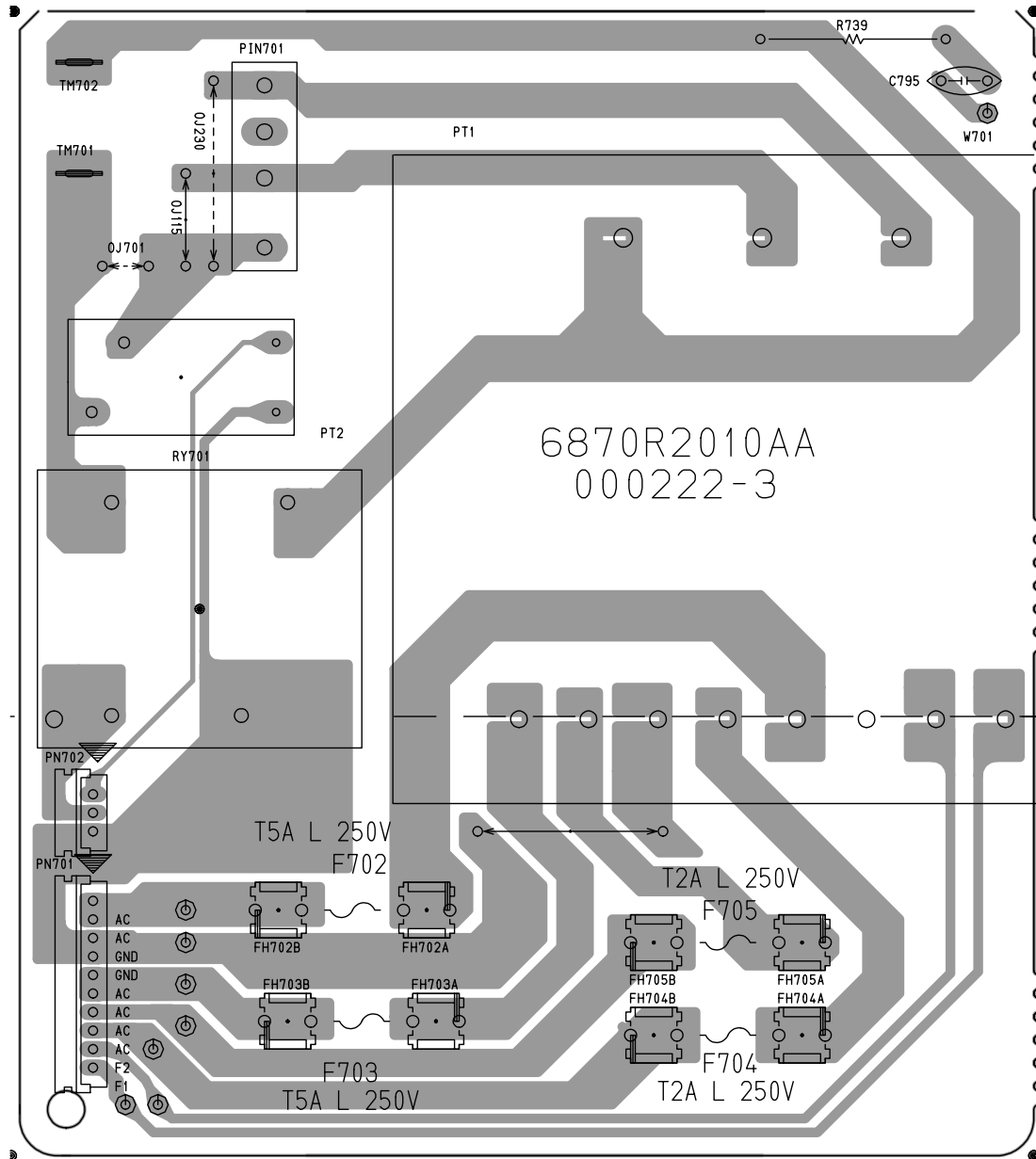


- **FRONT P.C. BOARD**

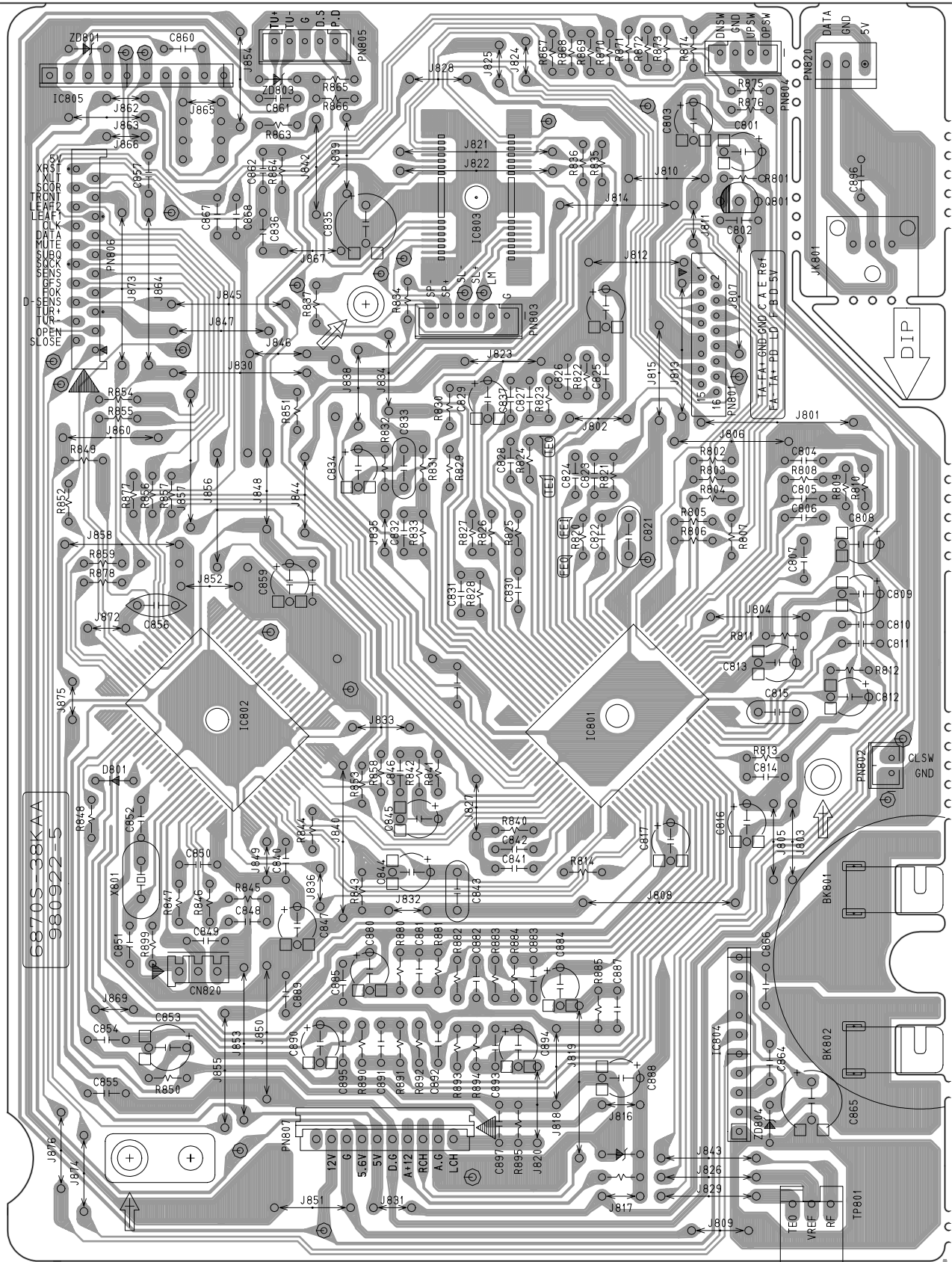


• POWER P.C. BOARD

(1) FFH-565 (optional, with POWER SAVING function)

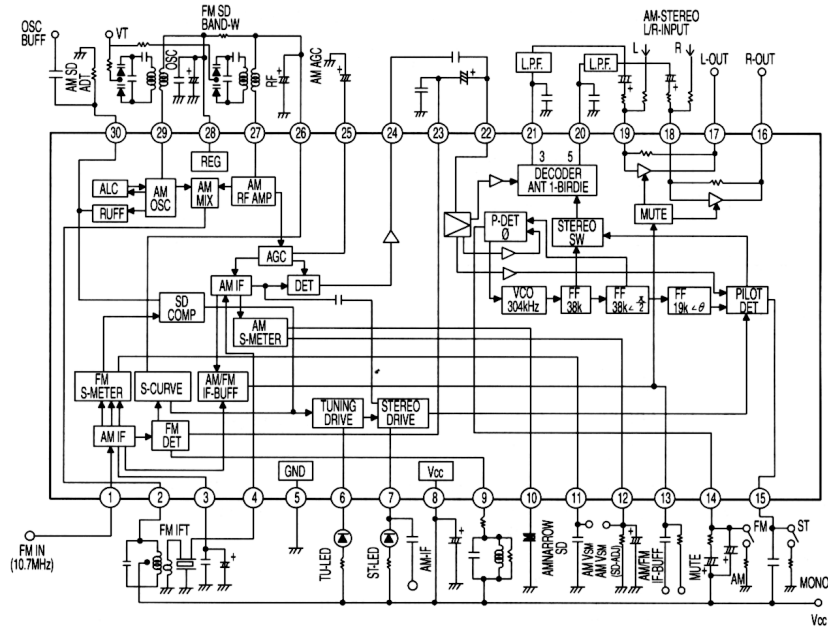


• CD MAIN P.C. BOARD

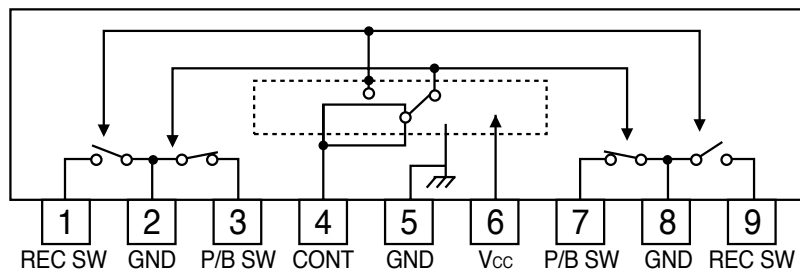


INTERNAL BLOCK DIAGRAM OF ICs

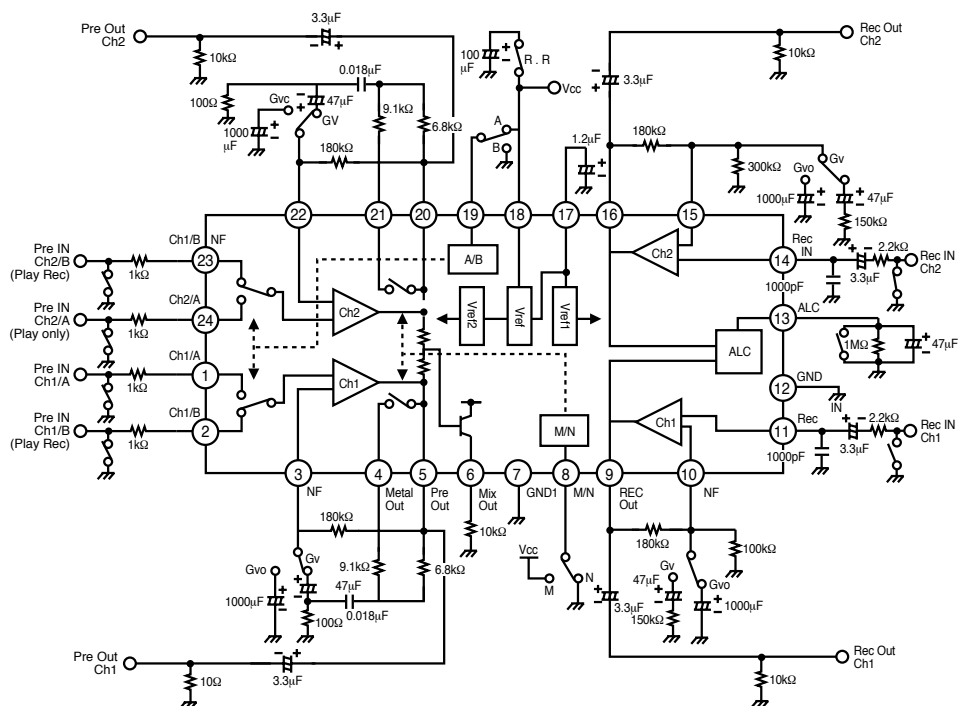
LA1837



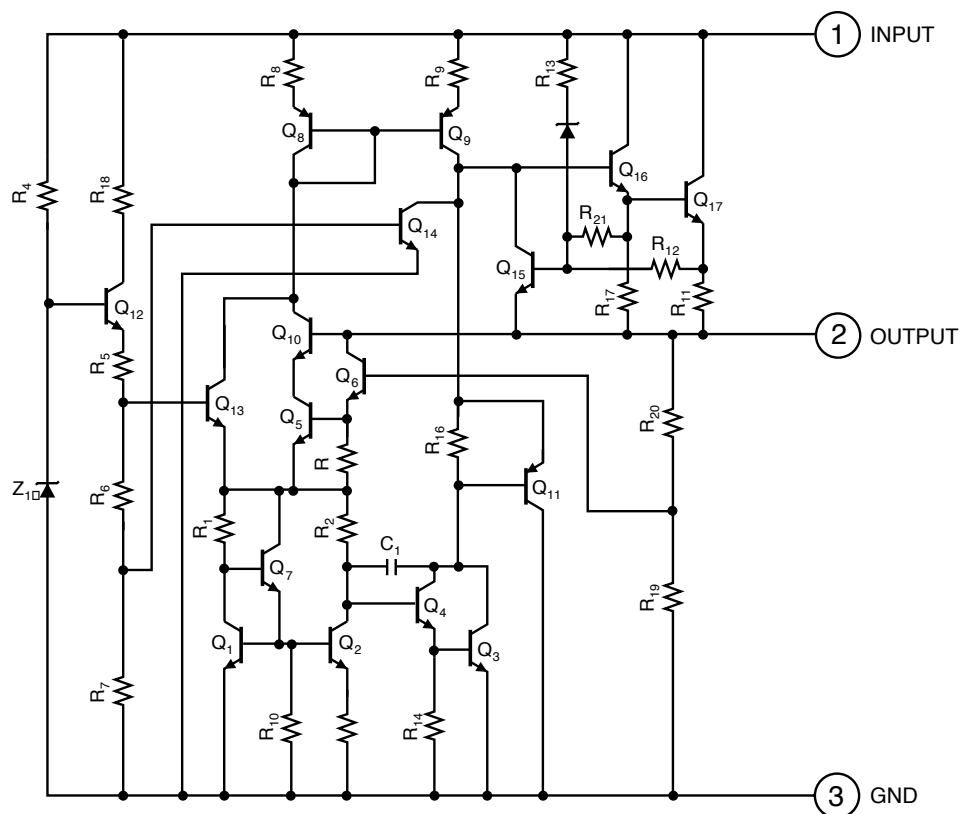
BA3126N



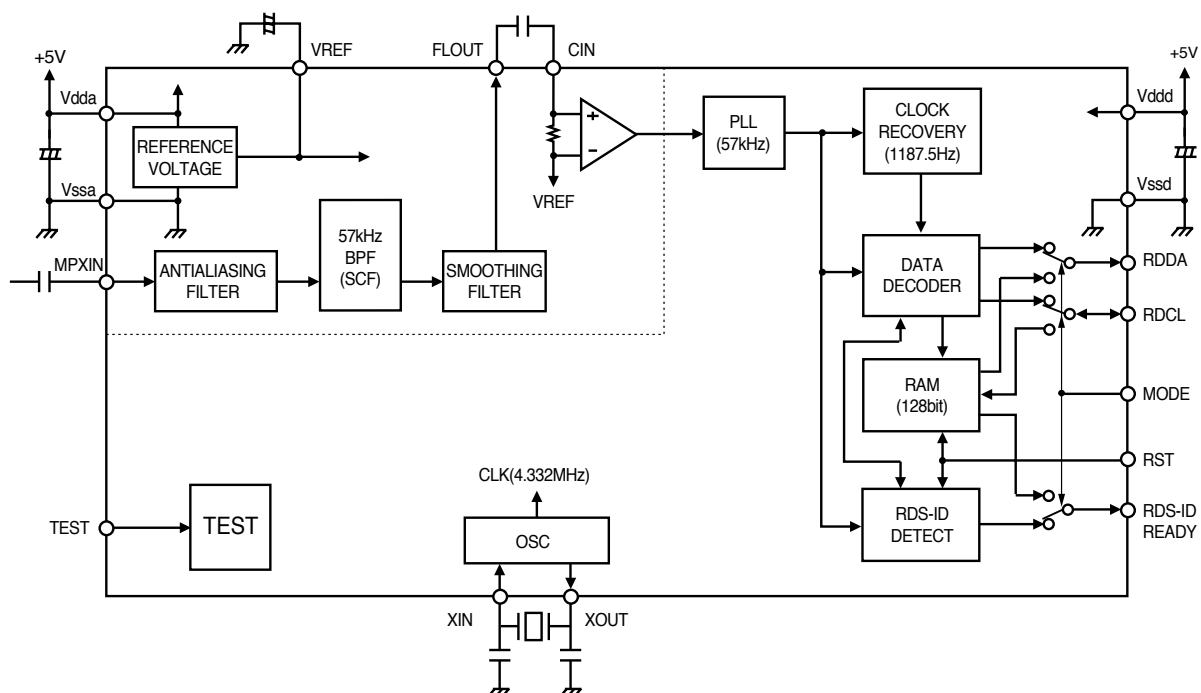
KIA6289N



■ KIA7805 P/PI ~ KIA7824P/PI

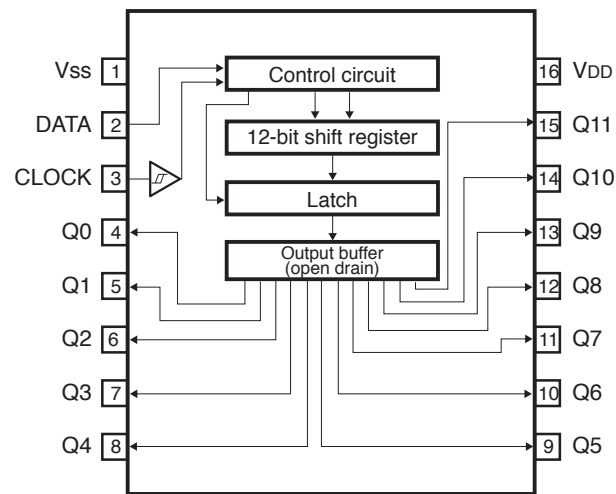


■ LC72723M



■ BU2090F

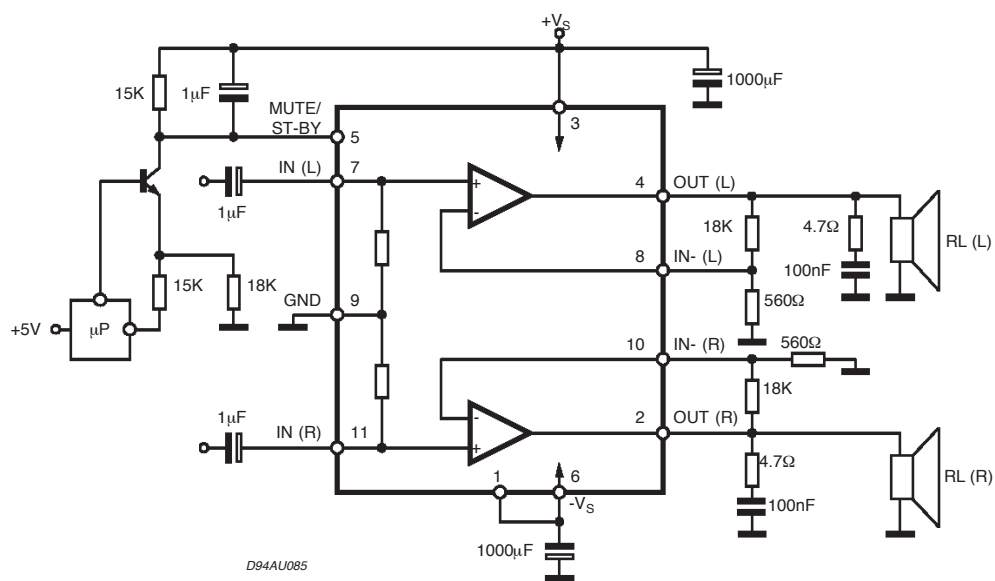
Block diagram



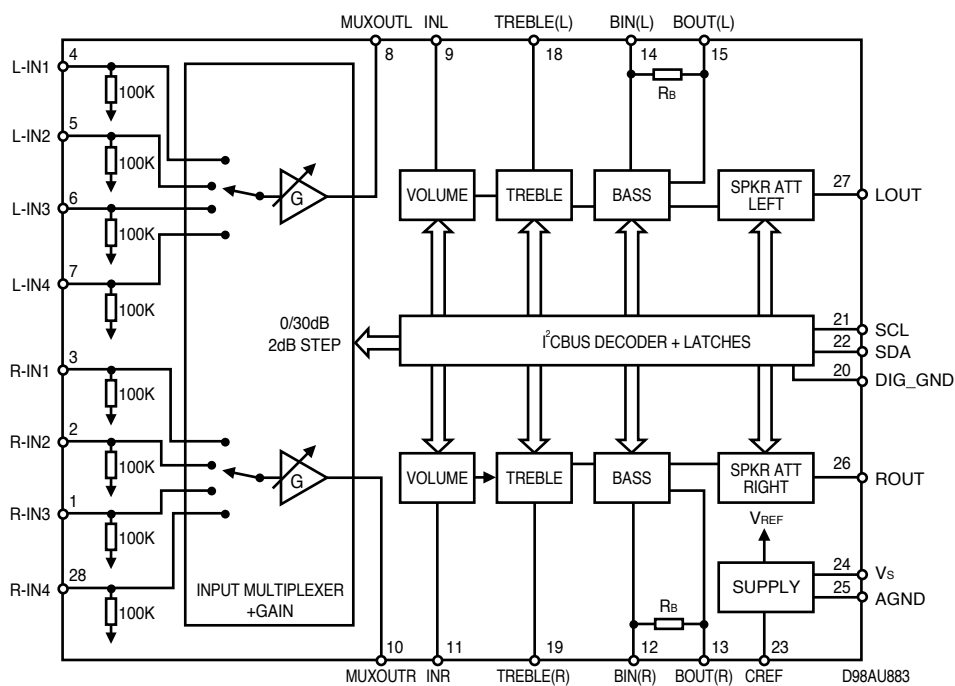
PIN DESCRIPTION

Pin No.			Pin name	Function
BU2090/F/FS	BU2092/F	BU2092/FV		
1	1	1	Vss	GND
2	2	2	DATA	Serial data input
3	3	3	CLOCK	Data shift clock input
-	4	4	LCK	Data latch clock input
4	5	5	Q0	parallel data output
5	6	6	Q1	parallel data output
6	7	7	Q2	parallel data output
7	8	8	Q3	parallel data output
8	9	9	Q4	parallel data output
9	10	10	Q5	parallel data output
10	11	11	Q6	parallel data output
-	-	12	N.C.	Not connected
-	-	13	N.C.	Not connected
11	12	14	Q7	parallel data output
12	13	15	Q8	parallel data output
13	14	16	Q9	parallel data output
14	15	17	Q10	parallel data output
15	16	18	Q11	parallel data output
-	17	19	\overline{OE}	Output Enable
16	18	20	VDD	Power supply

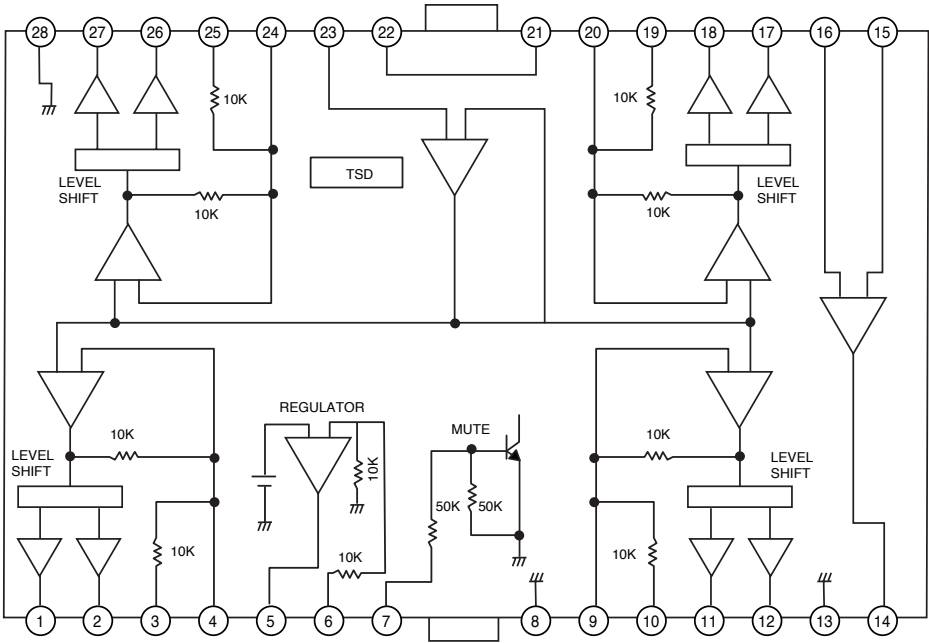
■ TDA7265



■ TDA7440D

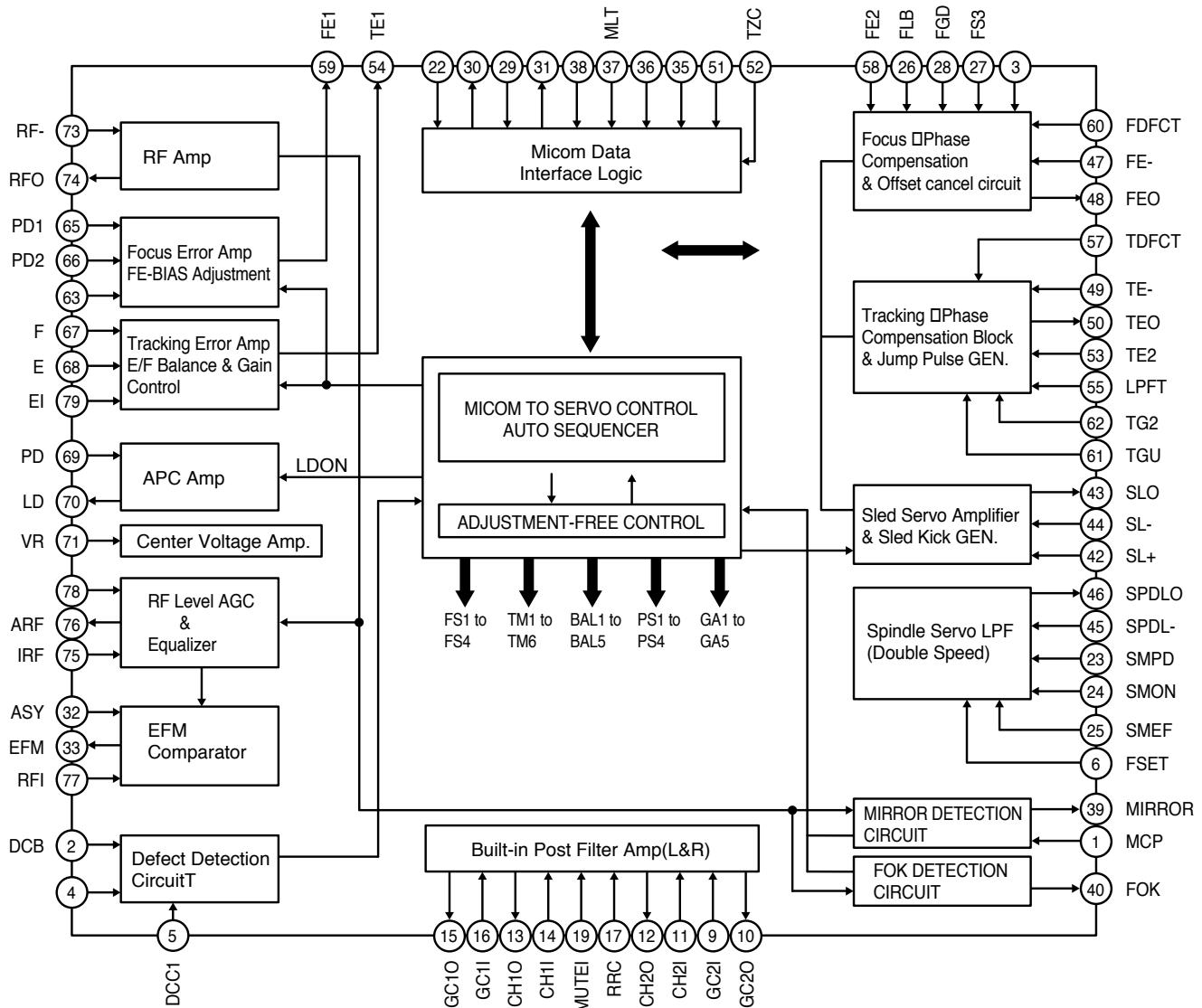


KA9258



PIN DESCRIPTION

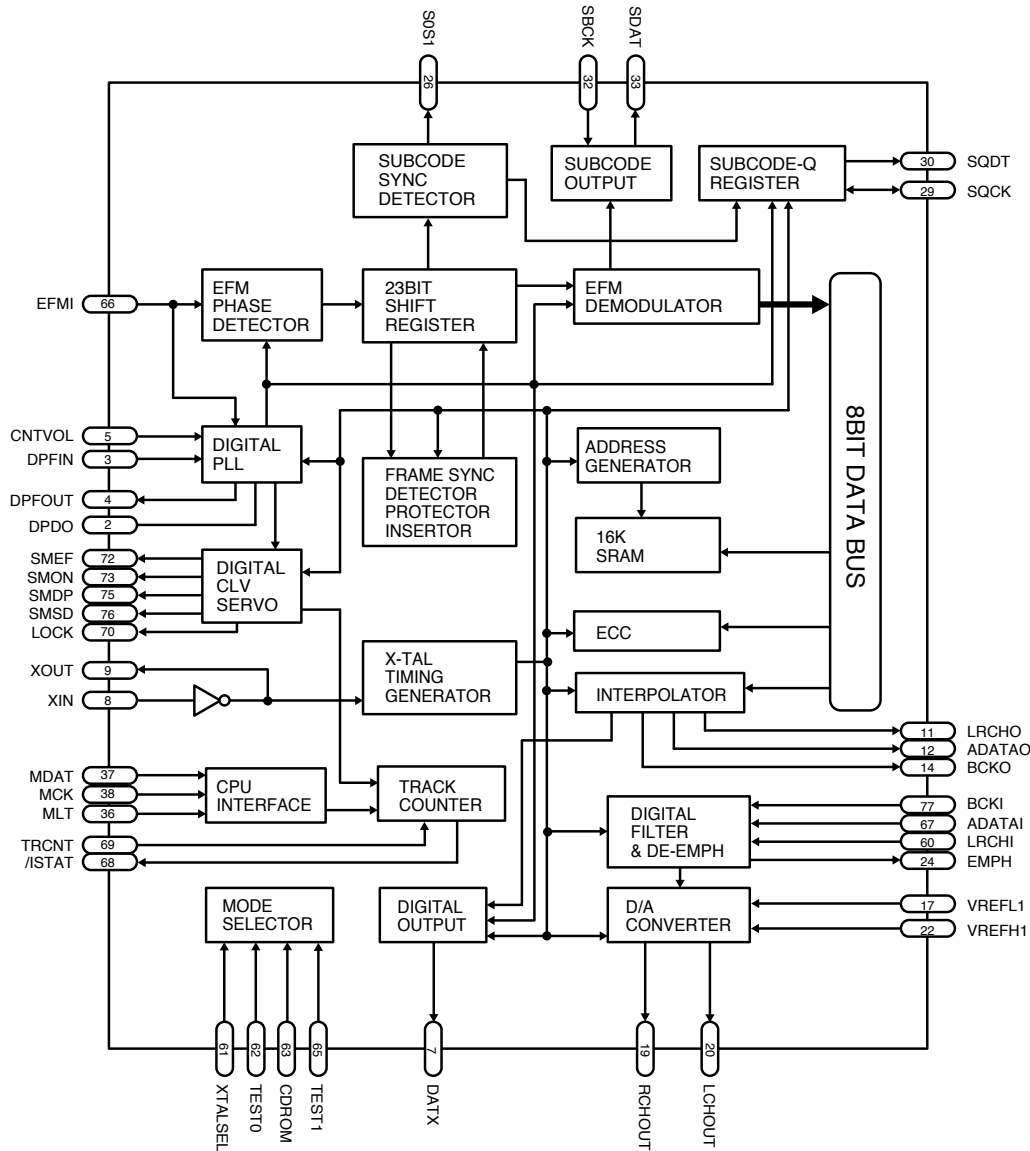
Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	DO1-1	O	Drive Output	15	OPIN(-)	I	OPamp Input(-)
2	DO1-2	O	Drive Output	16	OPIN(+)	I	OPamp output(+)
3	DI1-1	I	Drive Input	17	DO3-1	O	Drive Output(-)
4	DI1-2	I	Drive Input	18	DO3-2	O	Drive Output(+)
5	REG		Regulator	19	DI3-1	I	Drive Input
6	REO	O	Regulator Output	20	DI3-2	I	Drive Input
7	MUTE	I	Mute	21	VCC1	-	Supply Voltage
8	GND1	-	Ground	22	VCC2	-	Supply voltage
9	DI2.1	I	Drive Input	23	VREF	I	2.5V Bias Voltage
10	DI2.2	I	Drive Input	24	DI4.1	I	Drive Input
11	DO2.1	O	Drive Output	25	DI4.2	I	Drive Input
12	DO2.2	O	Drive Output	26	DO4.1	O	Drive Output(+)
13	GND2	-	Ground	27	DO4.2	O	Drive Output(-)
14	OPOUT	O	OPamp Output	28	GND3	-	Ground



PIN DESCRIPTION

Pin No.	System	Description
1	MCP	Capacitor connection pin for mirror hold
2	DCB	Capacitor connection pin for defect Bottom hold
3	FRSH.	Capacitor connection pin for time constant to generate focus search waveform
4	DCC2	The input pin through capacitor of defect bottom hold output
5	DCC1	The output pin of defect bottom hold
6	FSET	The peak frequency setting pin for focus, tracking servo and cut off frequency of CLV LPF
7	VDDA	Analog VCC for servo part
8	VCCP	VCC for post filter
9	GC2I	Amplifier negative input pin for gain and low pass filtering of DAC output CH2
10	GC2O	Amplifier output pin for gain and low pass filtering of DAC output CH2
11	CH2I	The input pin for post filter channel2
12	CH2O	The output pin for post filter channel2
13	CH1O	The output pin for post filter channel1
14	CH1I	The input pin for post filter channel1
15	GC1O	Amplifier output pin for gain and low pass filtering of DAC output CH1

Pin No.	System	Description
16	GC1I	Amplifier negative input pin for gain and low pass filtering of DAC output CH1
17	RRC	The pin for noise reduction of post filter bias
18	VSSP	VSS for post filter
19	MUTEI	The input pin for post filter muting control
20	ISET	The input pin for current setting of focus search, track jump and sled kick voltage
21	VREG	The output pin of regulator
22	WDCK	The clock input pin for auto sequence
23	SMDP	The input pin of CLV control output pin SMDP of DSP
24	SMON	The input pin for spindle servo ON through SMON of DSP
25	SMEF	The input pin of provide for an external LPF time constant
26	FLB	Capacitor connection pin to perform rising low bandwidth of focus loop
27	FS3	The pin for high frequency gain change of focus loop with internal FS3 switch
28	FGD	Reducing high frequency gain with capacitor between FS3 pin
29	LOCK	Sled runaway prevention pin
30	TRCNT	Track count output pin
31	ISTAT	Internal status output pin
32	ASY	The input pin for asymmetry control
33	EFM	EFM comparator output pin
34	VSSA	Analog VSS for servo part
35	MCK	Micom clock input pin
36	MDATA	Micom data input pin
37	MLT	Micom data latch input pin
38	RESET	Reset input pin
39	MIRROR	The mirror output for test
40	FOK	The output pin of focus OK comparator
41	SSTOP	The pin for detection whether pick_up position is innermost or not
42	SL+	The noninverting input pin of sled servo amplifier
43	SLO	The output pin of sled servo amplifier
44	SL-	The inverting input pin of sled servo amplifier
45	SPDL-	The noninverting input pin of spindle servo amplifier
46	SPDLO	The output pin of spindle servo amplifier
47	FE-	The inverting input pin of focus servo amplifier
48	FEO	The output pin of focus servo amplifier
49	TE-	The inverting input pin of tracking servo amplifier
50	TEO	The output pin of tracking servo amplifier
51	ATSC	The input pin for Anti-shock detection
52	TZC	The comaparator input pin for tracking zero crossing detection
53	TE2	Tracking servo input pin
54	TE1	Tracking error amplifier output pin
55	LPFT	The input pin of tracking error low pass filtering signal
56	DVDD	The power supply pin for logic circuit
57	TDFCT	The capacitor connection pin for tracking defect compensation
58	FE2	Focus servo input pin
59	FE1	Focus error amplifier output pin
60	FDFCT	The capacitor connection pin for focus defect compensation
61	TGU	The capacitor connection pin for high frequency tracking gain switch
62	TG2	The pin for high frequency gain change of tracking servo loop with internal TG2 switch
63	FEBIAS	Focus error bias voltage control pin
64	DVEE	The DVEE pin for logic circuit
65	PD1	The negative input pin of RF I/V amplifier1 (A+C signal)
66	PD2	The negative input pin of RF I/V amplifier2 (B+D signal)
67	F	The negative input pin of F I/V amplifier (F signal)
68	E	The negative input pin of E I/V amplifier (E signal)
69	PD	The input pin for APC
70	LD	The output pin for APC
71	VR	The output pin of (AVEE+AVCC)/2 voltage
72	VCC	VCC for RF part
73	RF-	RF summing amplifier inverting input pin
74	RFO	RF summing amplifier output pin
75	IRF	The input pin for AGC
76	ARF	The output pin for AGC
77	RFI	The input pin for EFM comparating
78	CAGC	The capacitor connection pin for AGC
79	EI	Feedback input pin of E I/V amplifier for EF Balance control
80	GND	GND for RF part



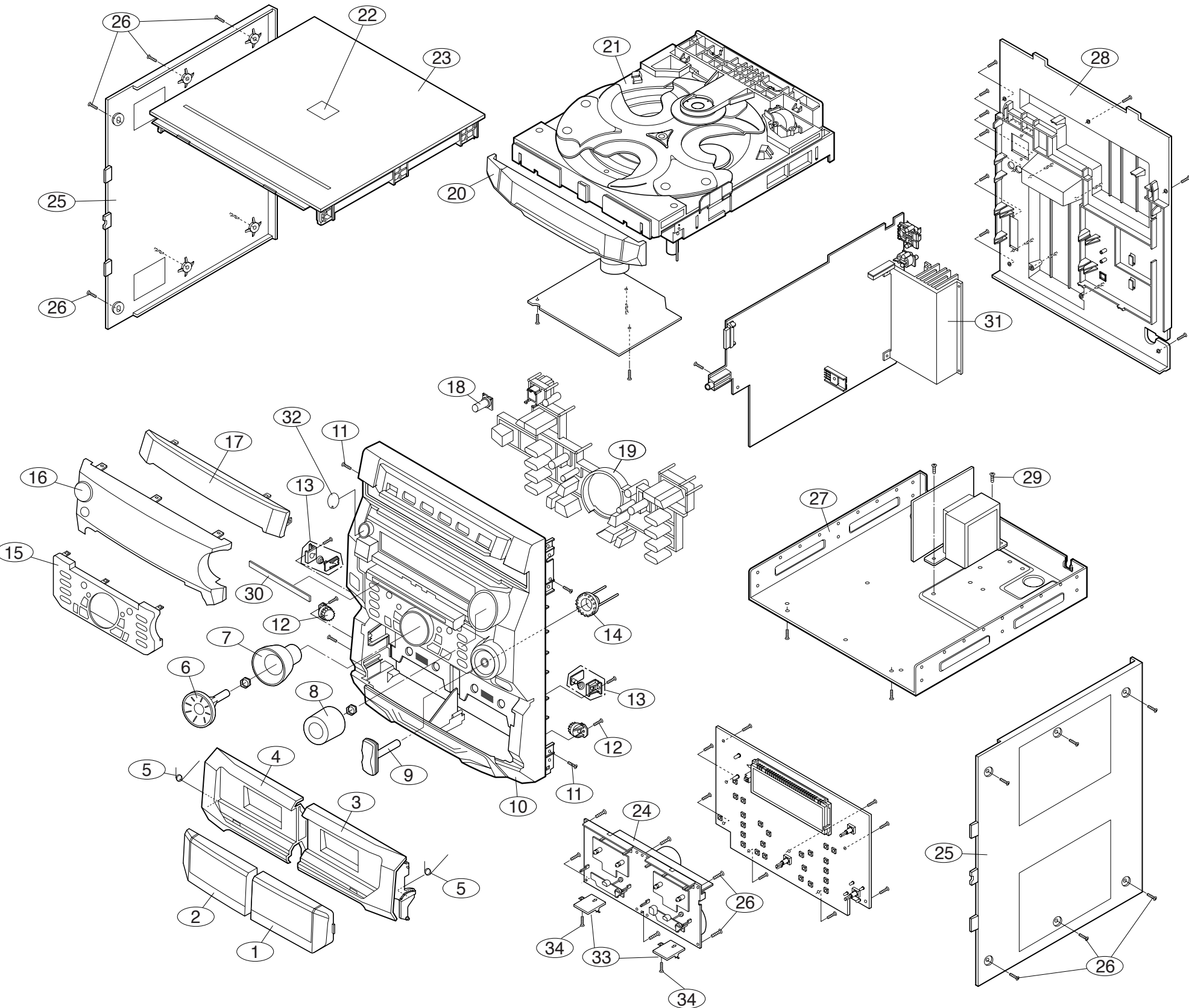
PIN DESCRIPTION

Pin No.	Symbol	IO	Description
1	AVDD1	-	Analog VCC1
2	DPDO	O	Charge pump output for Digital PLL
3	DPFIN	I	Filter input for Digital PLL
4	DPFOUT	O	Filter output for Digital PLL
5	CNTVOL	I	VCO control voltage for Digital PLL
6	AVSS1	-	Analog Ground1
7	DATX	O	Digital Audio output data
8	XIN	I	X'tal oscillator input
9	XOUT	O	X'tal oscillator output
10	WDCHO	O	Word clock output of 48bit/Slot (88.2KHz)
11	LRCHO	O	Channel clock output of 48 bit/Slot (44.1KHz), 88.2KHz when ESP ON
12	ADATAO	O	Serial audio data output of 48 bit/Slot (MSB first), double speed output when ESP ON
13	DVSS1	-	Digital Ground1
14	BCKO	O	Audio data bit clock output of 48 bit/Slot (2.1168MHz), 4.2336MHz when ESP ON
15	C2PO	O	C2 Pointer for output audio data
16	VREFL2	I	Input terminal2 of reference voltage "L" (Floating)

Pin No.	Symbol	IO	Description
17	VREFL1	I	Input terminal1 of reference voltage "L" (GND connection)
18	AVDD2	-	Analog VCC2
19	RCHOUT	O	Right-Channel audio output through D/A converter
20	LCHOUT	O	Left-Channel audio output through D/A converter
21	AVSS2	-	Analog ground2
22	VREFH1	I	Input terminal1 of reference voltage "H" (VDD connection)
23	VREFH2	I	Input terminal2 of reference voltage "H" (Floating)
24	EMPH	O	Emphasis/Non-Emphasis output, H: Emphasis ON, L: Emphasis OFF
25	LKFS	O	The Lock Status output of frame sync
26	S0S1	O	Output of subcode sync signal (S0+S1)
27	RESET	I	System reset at "L"
28	/ESP	I	ESP function ON/OFF control ("L": ESP function ON, "H": ESP function OFF)
29	SQCK	I	Clock for output Subcode-Q data
30	SQDT	O	Serial output of Subcode-Q data
31	SQOK	O	The CRC (Cycle Redundancy Check) check result signal output of Subcode-Q
32	SBCK	I	Clock for output subcode data
33	SDAT	O	Subcode serial data output
34	DVDD1	-	Digital VDD1
35	MUTE	I	Mute control input ("H": Mute ON)
36	MLT	I	Latch Signal Input from Micom (Scmit Trigger)
37	MDAT	I	Signal data input from Micom (Scmit Trigger)
38	MCK	I	Signal clock Input from Micom (Scmit Trigger)
39	DB8	I/O	SRAM data I/O port 8 (MSB)
40	DB7	I/O	SRAM data I/O port 7
41	DB6	I/O	SRAM data I/O port 6
42	DB5	I/O	SRAM data I/O port 5
43	DB4	I/O	SRAM data I/O port 4
44	DB3	I/O	SRAM data I/O port 3
45	DB2	I/O	SRAM data I/O port 2
46	DB1	I/O	SRAM data I/O port 1 (LSB)
47	C1F1	I/O	Monitoring output for C1 error correction (RA1)
48	C1F2	I/O	Monitoring output for C1 error correction (RA2)
49	C2F1	I/O	Monitoring output for C2 error correction (RA3)
50	C2F2	I/O	Monitoring output for C2 error correction (RA4)
51	C2FL	I/O	C2 decoder flag (RA5, "H": When one processing C2 code is impossible correction status.)
52	/PBCK	I/O	Output of VCO/2 (4.3218MHz) (RA6)
53	DVSS2	I/O	Digital ground 2
54	FSDW	I/O	Window or unprotected frame sync (RA7)
55	ULKFS	I/O	Frame sync protection state (RA8)
56	/JIT	I/O	Display of either RAM overflow onncerflow for ±4 frame jitter margin (RA9)
57	C4M	I/O	Only monitoring signal (4.2336M .. RA10)
58	C16M	I/O	16.9344MHz signal output (RA11)
59	/WE	I/O	Terminal for test
60	/CS	I/O	Terminal for test
61	XTALSEL	I	Mode Selection1 (H: 33.8688MHz, L: 16.9344MHz)
62	TEST0	I	TEST input terminal (GND connection)
63	CDROM	I	Mode Selection2 (H: CD-ROM, L: CDP)
64	SRAM	I	TEST input terminal (GND connection)
65	TEST1	I	TEST input terminal (GND connection)
66	EFMI	I	EFM signal input
67	ADATAI	I	Serial audio data input of 48 bit/Slot (MSB first)
68	/ISTAT	O	The internal status output
69	TRCNT	I	Tracking counter input signal
70	LOCK	O	Output signal of LKFS condition sampled PBFR/16 (if LKFS is "H", LOCK is "H", if LKFS is sampled "L" at least 8 times by PBFR/16, LOCK is "L".)
71	PBFR	O	Write frame clock (Lock: 7.35KHz)
72	SMEF	O	LPF time constant control of the spindle servo error signal
73	SMON	O	ON/OFF control signal for spindle servo
74	DVDD2	-	Digital VDD2
75	SMDP	O	Spindle Motor drive (Rough control in the SPEED mode, Phase control in the PHASE mode)
76	SMSD	O	Spindle Motor drive (Velocity control in the PHASE mode)
77	BCKI	I	Audio data bit clock input of 48 bit/Slot (2.1168MHz)
78	TESTV	I	TEST input terminal (GND connection)
79	DSPEED	I	TEST input terminal (VDD connection)
80	LRCHI	I	Channel clock input of 48 bit/Slot (44.1KHz)

EXPLODED VIEW/PARTS LIST

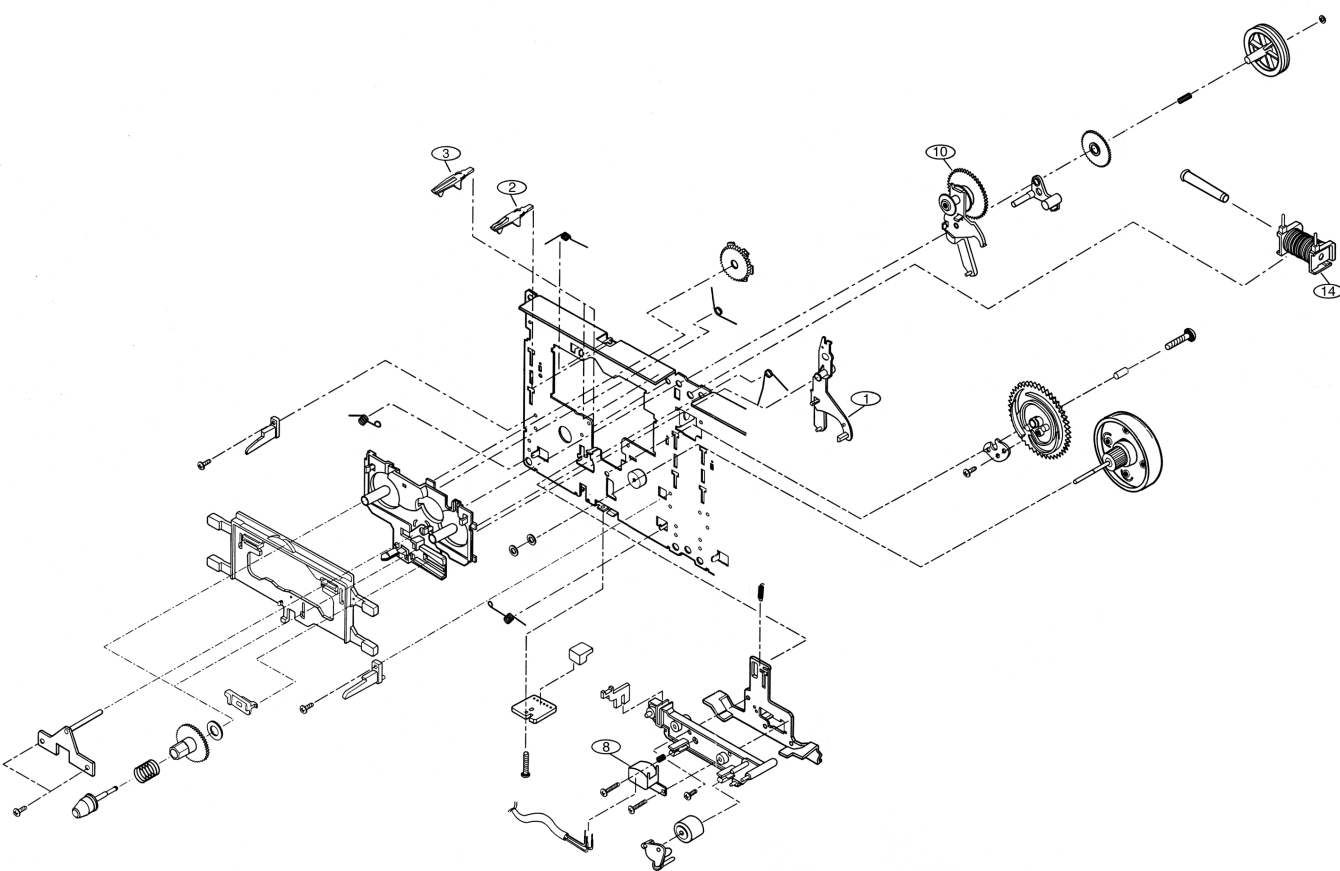
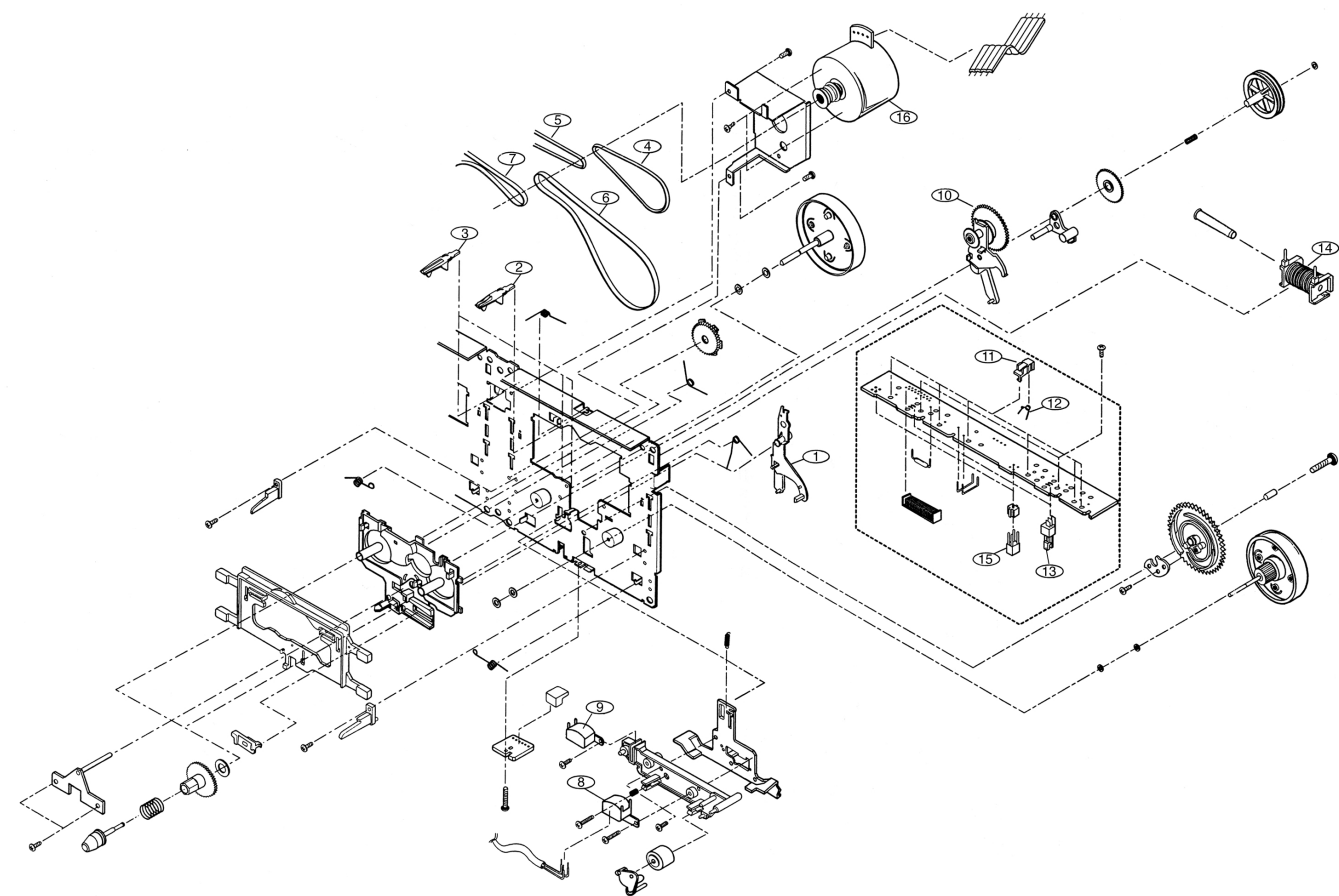
• CABINET(FFH-565)



• : Refer to the SPPL (Service Parts Price List). before order the part.

REF.NO.	PART NO.	DESCRIPTION
1	3790RCP006A	WINDOW CST-R (A-STOP)
1	3790RCP006B	WINDOW CST-R (A-REVERSE)
2	3790RCP005C	WINDOW CST-L
3	3580RCA003A	DOOR CST-R
4	3580RCA002A	DOOR CST-L
5	422-085E	SPRING DOOR
6	4940SC0053B	KNOB JOG
7	3680SC0004B	LENS JOG
8	4940SC0055B	KNOB VOLUME
9	4940RCV002A	KNOB ROTARY
10	3720RCF002A	PANEL FRONT
11	353-025TAAA	SCREW (3×10.5)
12	4901SK0001C	DAMPER ASSY
13	384-535A	GRIDE EJECT ASSY
14	3680RCA001A	LENS FUNC
15	3550RC0002E	COVER FRONT
15	3550RC0002C	COVER FRONT (WITH RDS)
16	3790RCP002H	WINDOW AMP
17	3790RCP003D	WINDOW CD
18	4940RCT004A	KNOB DIMMER
19	4940RCT003A	KNOB MAIN
20	3580RCC001A	DOOR CD
21	4405SCE002A	CD MECHA.(CDM-H1303)
22	246-444K	DECO PLATE
23	3090S-0003F	CABINET TOP
24	6730S-G004A	DECK MECHA.(AUTO STOP)
24	6730S-G004B	DECK MECHA.(AUTO REVERSE)
25	3720S-0036D	PANEL SIDE
26	353-025C	SCREW(3×10)
27	3140S-P907A	CHASSIS MAIN
28	3720RCZ003A	PANEL BACK
29	1TRL0402418	SCREW
30	3806RC0001A	DECO COVER
31	4920S-E004A	HEAT SINK MAIN
32	3806RC0002A	DECO MDSS
33	3300SCM003A	PLATE SHIELD-DECK
34	353-022K	SCREW (2×3)

• TAPE DECK MECHANISM: AUTO STOP DECK(OPTIONAL)

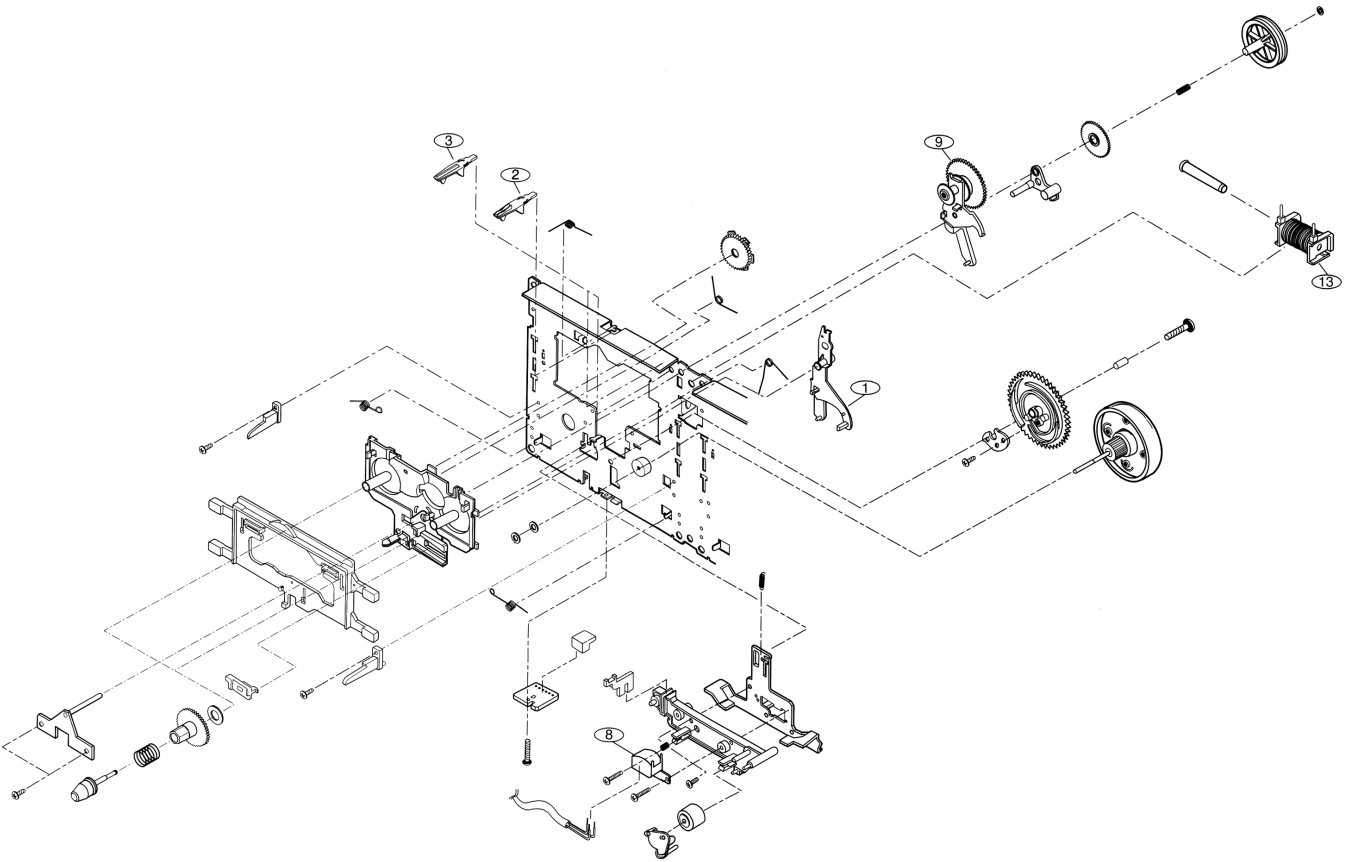
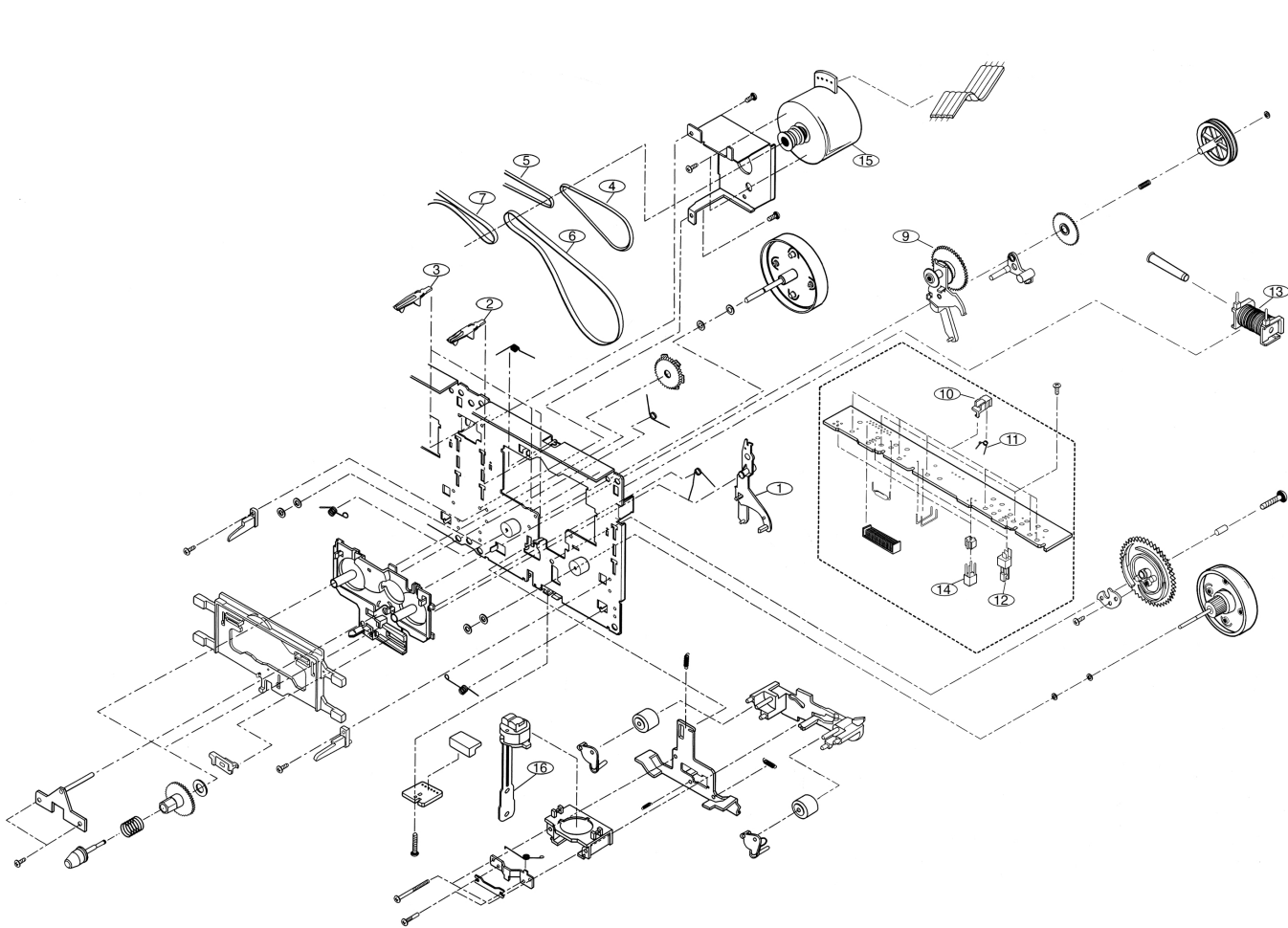


※ Serviceable Parts List

LOCA.NO.	PART NO.	DESCRIPTION
1	6768S-AP02A	50-268-3016 ARM PIGEON TRIGGER
2	6768S-AP02B	50-239-4026 ARM PIGEON CS
3	6768S-AP02C	50-239-4027 ARM PIGEON SW
4	6768S-BP04A	02-083-4165 BELT/FELT PIGEON B
5	6768S-BP04B	02-083-4166 BELT/FELT PIGEON A
6	6768S-BP04C	02-084-4161 BELT/FELT PIGEON B
7	6768S-BP04D	02-084-4163 BELT/FELT PIGEON A
8	6768S-HP03A	TC881CB067B HEAD PIGEON PB HEA

LOCA.NO.	PART NO.	DESCRIPTION
9	6768S-HP03B	TC231F HEAD PIGEON E HEAD
10	6768S-GP02A	50-093-4069 GEAR PIGEON CLUTCH
11	6768S-MP02A	50-219-4028 MOLD PIGEON SW BOX
12	6768S-SP02A	01-082-4646 SPRING PIGEON LEAF
13	6768S-TP01B	MSW17220MVQ0 SWITCH PIGEON MOD
14	6768S-VP01A	50-093-4125 SOLENOID PIGEON
15	6768S-XP01B	SG211V SPECIAL PIGEON PHOTO IN
16	6768S-OP01A	50-093-4198 MOTOR ASSY PIGEON

• TAPE DECK MECHANISM: AUTO REVERSE DECK(OPTIONAL)

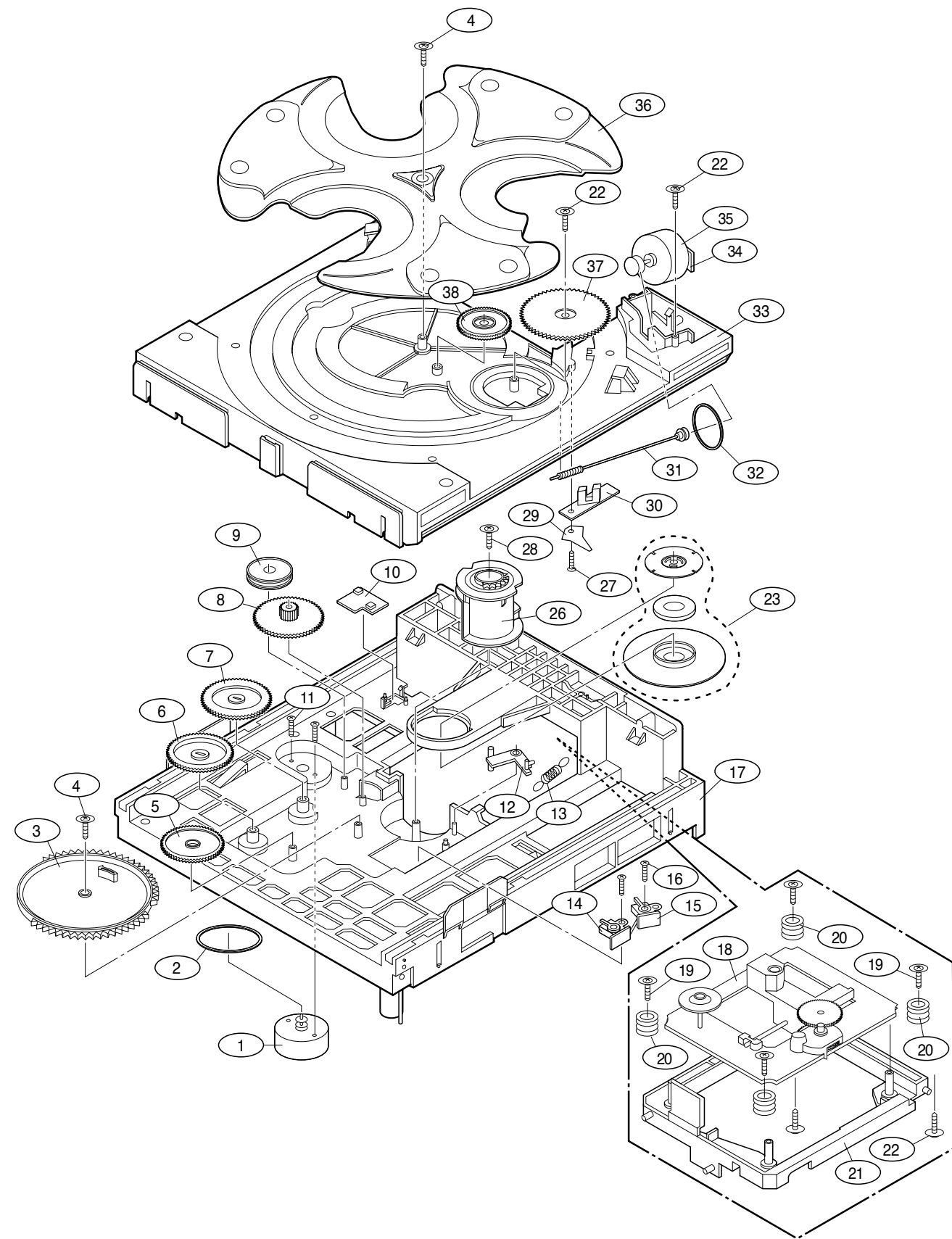


※ Serviceable Parts List

LOCA.NO.	PART NO.	DESCRIPTION
1	6768S-AP02A	50-268-3016 ARM PIGEON TRIGGER
2	6768S-AP02B	50-239-4026 ARM PIGEON CS
3	6768S-AP02C	50-239-4027 ARM PIGEON SW
4	6768S-BP04A	02-083-4165 BELT/FELT PIGEON B
5	6768S-BP04B	02-083-4166 BELT/FELT PIGEON A
6	6768S-BP04C	02-084-4161 BELT/FELT PIGEON B
7	6768S-BP04D	02-084-4163 BELT/FELT PIGEON A
8	6768S-HP03A	TC881CB067B HEAD PIGEON PB HEA

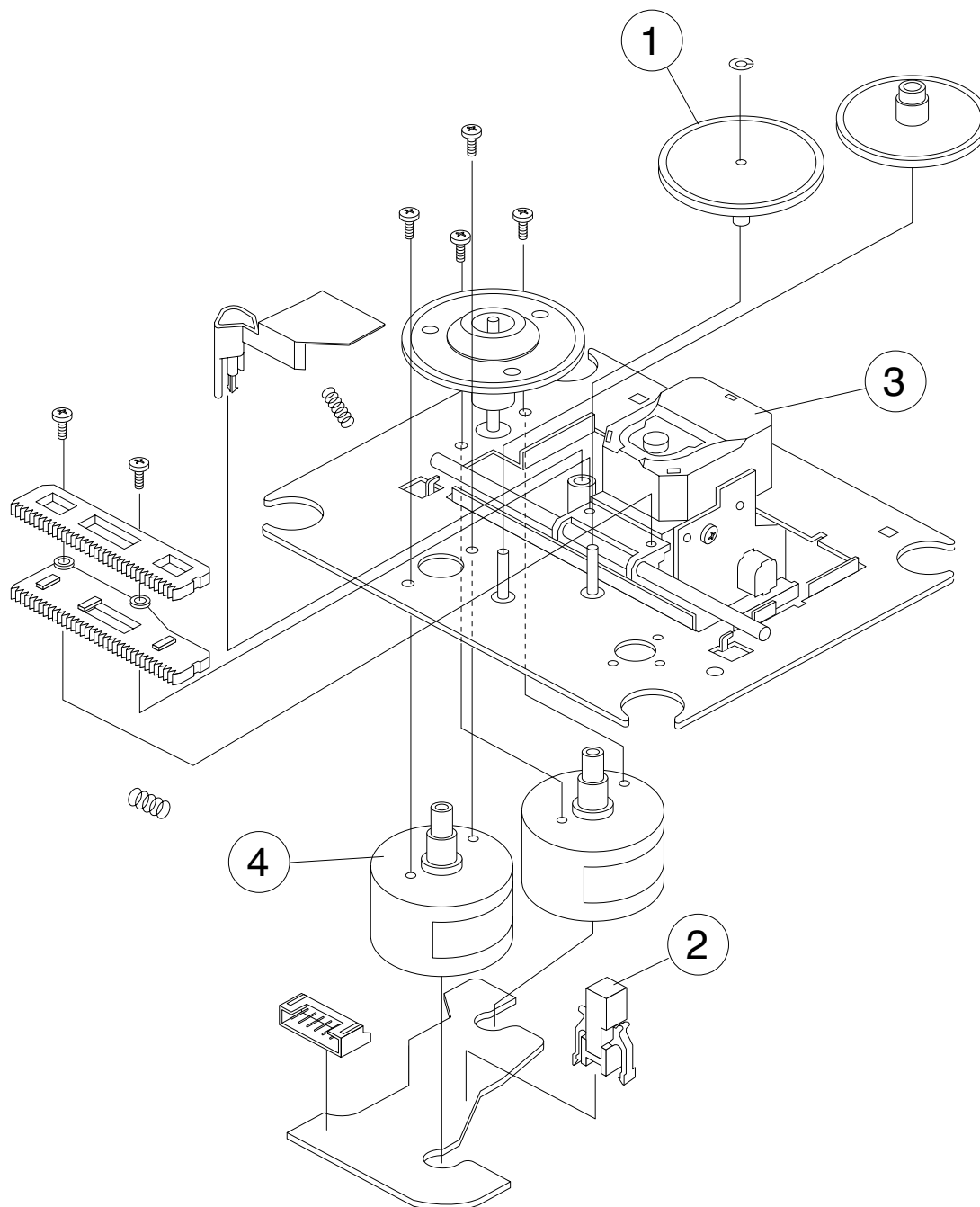
LOCA.NO.	PART NO.	DESCRIPTION
9	6768S-GP02A	50-093-4069 GEAR PIGEON CLUTCH
10	6768S-MP02A	50-219-4028 MOLD PIGEON SW BOX
11	6768S-SP02A	01-082-4646 SPRING PIGEON LEAF
12	6768S-TP01B	MSW17220MVQ0 SWITCH PIGEON MOD
13	6768S-VP01A	50-093-4125 SOLENOID PIGEON
14	6768S-XP01B	SG211V SPECIAL PIGEON PHOTO IN
15	6768S-OP01A	50-093-4198 MOTOR ASSY PIGEON
16	6768S-EP01A	50-093-4070 HEAD ASSY PIGEON

• CD MECHANISM



REF.NO.	PART NO.	DESCRIPTION
-	4405SCE002A	CD MECHANISM ASS'Y(CDM-H1303)
1	4680SBP001A	MOTOR PULLEY ASS'Y
2	4400SB0001A	BELT MAIN
3	4470SB0005A	GEAR MAIN
4	88H-0004	SCREW(3X12X12)
5	4470SB0007A	GEAR PU UP-A
6	4470SB0008A	GEAR PU UP-B
7	4470SB0006A	GEAR PU DOWN
8	4470SB0004A	GEAR LOADING
9	4470SB0003A	GEAR PULLEY
10	6871SB21RAD	PCB ASS'Y CLOSE
11	353S353F	SCREW D2.6 L4.0
12	4974SB0001A	GUIDE CAM
13	4970SBN002A	SPRING CAM
14	6871SC21RAD	PCB ASS'Y OPEN
15	6871SD21RAD	PCB ASS'Y CAM
16	88H-0004	SCREW(3X12X12)
17	3040SB0002A	BASE MAIN
18	4405SCB001A	MECHANISM ASS'Y(KSM-213CCM)
19	6756SBX001A	SCREW(2.6X10X10)
20	4900SB0001A	DAMPER RUBBER
21	3040SB0003A	BASE PU(CDM-H1303)
22	88H-0002	SCREW(3X9X12)
23	4860SB0002A	CLAMP ASS'Y
26	4471SB0001A	GEAR CAM ASS'Y
27	353-025B	SCREW D3.0 L8.0
28	88H-0003A	SCREW(3X12X10)
29	4974SB0003A	GUIDE WORM
30	6871SF21RAD	PCB ASS'Y SENSOR
31	4371SB0002A	SHAFT ASS'Y TRAY
32	4400SB0001B	BELT TRAY
33	3390SB0001A	TRAY LOADING
34	6870SE21RAB	PCB ASS'Y TRAY
35	4680SBP002A	MOTOR ASS'Y TRAY
36	3390SB0002A	TRAY DISC
37	4470SB0010A	GEAR TRAY A
38	4470SB0011A	GEAR TRAY B

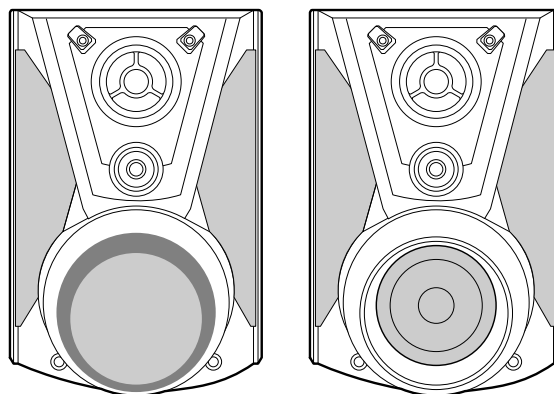
• OPTICAL PICK-UP CARRIAGE



❖ Serviceable Parts List

REF.NO.	PART NO	DESCRIPTION
	4405SCB001A	MECHANISM ASSEMBLY, KSM-213CCM
1	6756S-G001A	GEAR
2	6756S-T001A	SWITCH
3	6756S-X001A	PICK-UP, KSS-213C
4	6756S-O001A	MOTOR

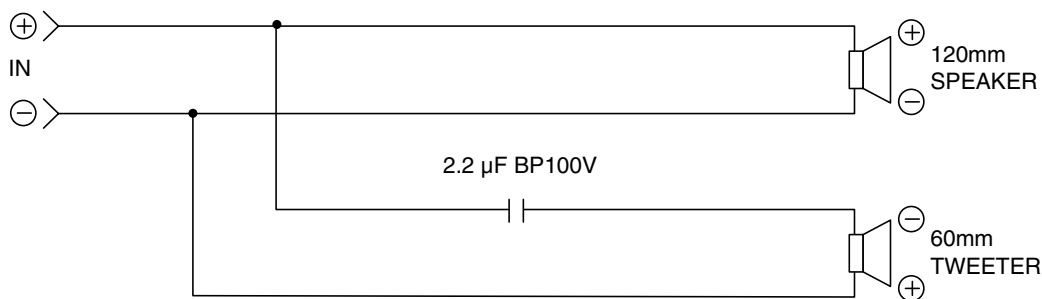
SPEAKER SYSTEM



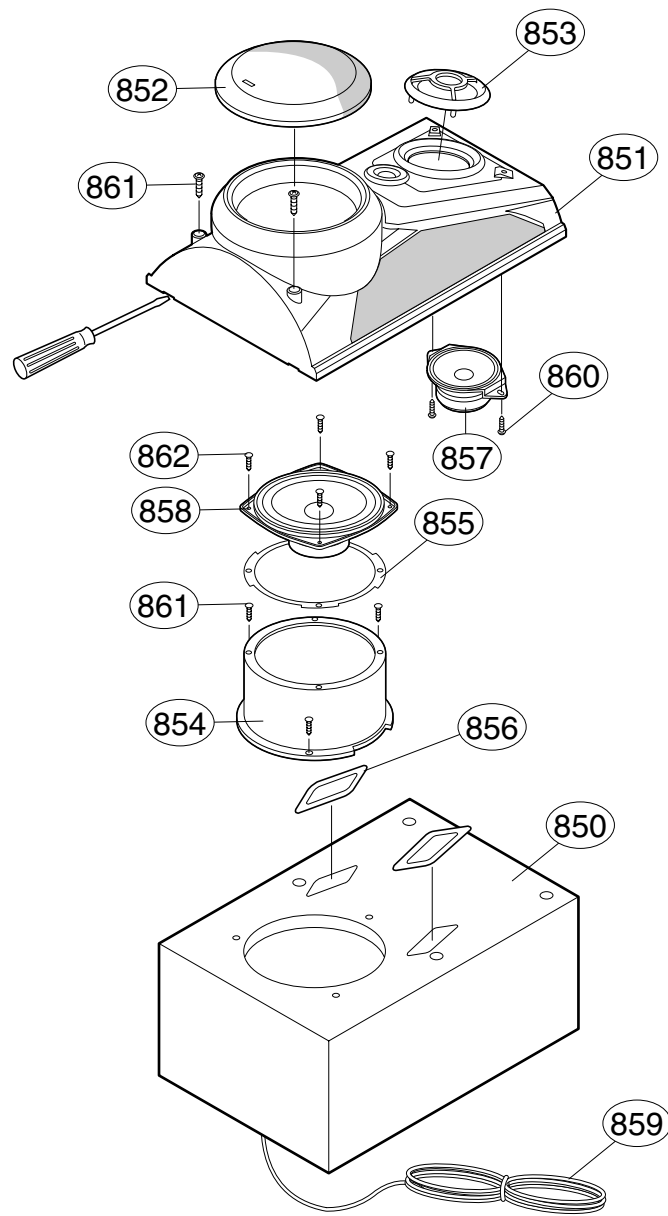
SPECIFICATION

• TYPE	: BASS REFLEX 2 WAY 2 SPEAKER SYSTEM
• SPEAKER SYSTEM	: 120mm SPEAKER(5"), 60mm TWEETER(2 1/4")
• FREQUENCY RANGE	: 60Hz~ 20,000Hz
• IMPEDANCE	: 6 ohm
• S.P.L.	: 85dB/W(1m)
• RATED INPUT POWER	: 50W
• MAX. INPUT POWER	: 100W
• DIMENSION(NET)	: 220(W) × 325(H) × 250(D)mm
• WEIGHT(NET)	: 3.4kg

SCHEMATIC DIAGRAM



EXPLODED VIEW/PARTS LIST



REF.NO.	PART NO.	DESCRIPTION
850	3091RMW002A	CABINET ASSY
851	3720RMF002A	FRONT PANEL
852	3700RM0008C	JERSEY NET ASSY
853	3806RM0002A	DECO TWEETER
854	4350RM0002A	RING WOOFER
855	4766SMN032A	FELT WOOFER
856	4766SMN033B	FELT DUCT
857	6400RMSB01A	SPEAKER TWEETER
858	6400SCSG04C	SPEAKER WOOFER
859	564M033H	CORD SPEAKER ASSY
860	353M025C	SCREW TAPTITE 3x10 FBK
861	353M050C	SCREW BH 3.5x16 FBK
862	353M056D	SCREW TRQ 3.5x8 FBK